Summary Proceedings

of the

Twenty-eighth Meeting of the Indian Central Cotton Committee, Bombay,

held on the

29th and 30th January 1934

MO-II Bk Y 70—1

APPENDICES.

At the 28th meeting of the Indian Central Cotton Committee the 29th and 30th January 1934, at Vulcan House, Nicol Road Bombay, under the chairmanship of Dewan Bahadı T. Vijayaraghavacharya, important subjects came up for di: including issues of immediate interest to the cotton trade, like the use of Indian cotton in the United Kingdom, Cotton Policy in the Trade Agreement with Japan, Reduction of Railway Frei Cotton, which were threshed out at great length.

His Excellency the Governor of Bombay honoured the meeting with his presence.

After the Presidential Address and a speech by His Excellency the Governor, who sat through the proceedings for full two hours, the meeting settled down to the normal routine of business on the agenda, beginning with the Confirmation of Minutes, Retirement of members by rotation, Appointment of Vice-President and Sub-Committees, and Appointment of members on the Board of the East India Cotton Association.

Before the meeting proceeded with consideration of the Agenda, a vote of thanks to His Excellency the Governor was unanimously passed and the President thereafter read out a message from the Honourable Khan Bahadur Mian Sir Fazl-i-Husain, K.C.S.I., K.C.I.E., Kt., Member-in-charge of Education, Health and Lands Department, Government of India.

The following members were present at the meeting :—

His Excellency the Right-Honourable Michael Herbert Rudolf Knatchbull, Lord Brabourne, G.C I.E., M C., Governor of Bombay,

Dewan Bahadur Sir T. Vijayaraghavacharya, K.B.E. (*President*), Vice-Chairman, Imperial Council of Agricultural Research,

Sir Purshotamdas Thakurdas, Kt , C.I.E., M.B.E., (*Vice-President*), Representative of the East India Cotton Association, Bombay,

B. C. Burt, Esq., C.I.E., M B.E., I.A S., Agricultural Expert, Imperial Council of Agricultural Research, (*ex-officio*),

Dr. W. Burns, I.A S., Director of Agriculture, Representative of the Agricultural Department, Bombay Presidency,

P. B. Richards, Esq., I.A.S., Entomologist to Government, Representative of the Agricultural Department, United Provinces,

H. R. Stewart, Esq , I.A S , Director of Agriculture, Representative of the Agricultural Department, Punjab,

J. H. Ritchie, Esq., I A.S., Director of Agriculture, Representative of the Agricultural Department, Central Provinces,

S. D. Saklatvala, Esq , Representative of the Bombay Millowners' Association,

H. B Moore, Esq , Representative of the Bombay Chamber of Commerce,

Chunilal B. Mehta, Esq., Representative of the Indian Merchants' Chamber, Bombay,

O. G. Barnes, Esq., Representative of the Karachi Chamber of Commerce,

th Naranlal Jivanlal, Representative of the Ahmedabad Millowners' Association,

Vonesch, Esq , Representative of the Tuticorin Chamber of Commerce,

E. J. W. Plummer, Esq., Representative of the Upper India Chamber of Commerce,

W. Roberts, Esq., Representative of the Empire Cotton Growing Corporation,

Y. G. Deshpande, Esq., Commercial Representative, Central Provinces,

Rao Bahadur G. R. Kothare, M.L.C., Commercial Representative, Central Provinces,

Khan Bahadur Sardar Habibullah, M.L.C., Commercial Representative, Punjab,

Rao Bahadur M. G. Deshpande, C.B.E., Co-operative Banking Representative,

The Honourable Mr. V. C. Vellingiri Gounder, Representative of cotton growers, Madras,

M. R. Ry. K. Sarabha Reddi Garu, M.L.C., Representative of cotton growers, Madras,

Sardar Rao Bahadur Bhimbhai Ranchodji Naik, M.L.C., Representative of cotton growers, Bombay Presidency,

Rao Bahadur C. S. Shirahatti, Representative of cotton growers, Bombay Presidency,

Rai Bahadur Lala Anand Sarup, M.L.C., Representative of cotton growers, United Provinces,

Sardar Sampuran Singh, M.L.C., Representative of cotton growers, Punjab,

Mian Nurullah, M.L.C., Representative of cotton growers, Punjab,

N. M. Deshmukh, Esq., Representative of cotton growers, Central Provinces and Berar,

J. B. Deshmukh, Esq., Representative of cotton growers, Central Provinces and Berar,

C. V. Sane, Esq., Director of Agriculture, Representative of the Baroda State,

H. H. Pandya, Esq., Agricultural Adviser, Representative of the Gwalior State,

F. K. Jackson, Esq., Director, Institute of Plant Industry, Indore, Representative of Rajputana and Central India States,

D. N. Mahta, Esq., Economic Botanist for Cotton, Central Provinces,

M. R. Ry. V. Ramanatha Ayyar, Avl., Cotton Specialist, Coimbatore,

Mashir Bahadur S. V. Kanungo, Customs Commissioner, Representative of the Indore State,

W. J. Jenkins, Esq., I.A.S., Chief Agricultural Officer in Sind,

Rai Saheb Thakur Ram Prasad Singh, Economic Botanist to Government (Cotton), United Provinces, Cawnpore,

Khan Bahadur Nawab Fazl-i-Ali Khan, Chairman, District President, Central Co-operative Bank Ltd., Gujrat (Punjab),

The Secretary, (P. H. Rama Reddi, Esq., I.A S),

The Director, Technological Laboratory (Dr. Nazir Ahmad), and

The Publicity Officer (R. D. Mihra, Esq.).

By invitation.

Sir Richard H. Jackson, Chairman, Indian Cotton Enquiry Committee, Manchester.

The Hon'ble Dewan Bahadur S. T. Kambli, J P., Minister for Agriculture, Government of Bombay.

The Hon'ble Khan Bahadur D. B Cooper, J P., Minister for Local Self-Government, Government of Bombay.

Sir Joseph A. Kay, Kt., C/o Messrs. W. H. Brady & Co , Bombay.

Major W. Ellis Jones, M.L C , C/o Messrs. Drennan & Co , Bombay.

Sir Munmohandas Ramji, Kt.
T. V. Baddeley, Esq.
H. H. Lakin, Esq.
Madhavji D Thackersey, Esq
} Representatives of the Bombay Mill-owners' Association.

Seth Kasturbhai Lalbhai, Pankore's Naka, Ahmedabad.

W. D. M. Clarke, Esq., His Majesty's Trade Commissioner at Bombay.

Balubhai Kalidas Patel, Esq., Chairman, Sonsek Co-operative Cotton Sale Society, Sonsek.

Rao Bahadur D. Ananda Rao Garu, Officiating Director of Agriculture, Madras Presidency.

G. B. Phanse, Esq., Deputy Director of Statistics, Calcutta

J. B. Hutchinson, Esq., Geneticist and Botanist, Institute of Plant Industry, Indore.

Nizam-ud-din Hyder, Esq., Director of Agriculture, His Exalted Highness the Nizam's Government, Hyderabad (Deccan).

Rai Sahib Kalidas Sawhney, Cotton Research Botanist, Parbhani.

Mohammad Afzal, Esq., Cotton Research Botanist, Lyallpur.

G. P. Pathak, Esq., Acting Deputy Director of Agriculture, Gujerat, Surat.

M. L. Patel, Esq., Cotton Breeder, Gujerat, Surat.

Makanji Kahanji Patel, Esq., Supervisor, Gujerat Co-operative Cotton Sale Societies' Union, Sonsek.

Addressing the meeting the President said :—

"Your Excellency and Gentlemen,

It is my privilege to extend to Your Excellency on behalf of the Indian Central Cotton Committee a very cordial welcome to this its 28th meeting

and to express our sincere appreciation of this clear proof of Your Excellency's interest in our work. It is a matter of satisfaction to us that you have done us this honour within two months of your arrival in India and that at a time when you have other more engrossing preoccupations. Nearly one-third of the total cotton produced in India comes from the Bombay Presidency and the Indian States situated within its borders. A third of the ginning and pressing factories and about two-thirds of the total number of spinning mills in India are situated in this province; also about two-thirds of the Indian cotton crop is marketed in the only two well-organised cotton markets of India, viz., Bombay and Karachi, which are also in this Presidency. Bombay is thus rightly entitled to be ranked as the premier cotton province of India. The prosperity of the Presidency over which you, Sir, have the privilege of presiding is bound up with the prosperity of cotton in all its phases, agricultural, industrial and commercial. Consequently our connexion with the Government of Bombay is very close and we are happy in the thought that our relations with successive heads of the Government have always been of a most harmonious character.

2. On behalf of the Committee, I also desire to extend to Sir Richard Jackson a warm welcome to India, and to this meeting of the Indian Central Cotton Committee. As the Chairman of the Council of the Empire Cotton Growing Corporation, as a distinguished representative of the British Cotton Growing Association, and the Chairman of the Indian Cotton Inquiry Committee set up in England, Sir Richard not only occupies a prominent position in the cotton world, but one of interest and importance to India. The direct object of his visit is to extend and develop the use of Indian cottons in England, an object in the furtherance of which our Committee has co-operated with his Committee from the time His Majesty's Government in the United Kingdom established the Committee of Inquiry in pursuance of the Ottawa Agreement. I trust that his visit will stimulate the endeavours that are being made to popularise Indian cotton in Lancashire and remove whatever impediments there may be to its further and fuller utilisation. Sir Richard realises, nobody better, what a wide scope there is for the extended use of our cotton in England. In the last few days I have had the privilege of arranging for him a programme of visits to the main cotton tracts of India which will give him an opportunity of studying problems on the spot and seeing something of the research work which the Indian Central Cotton Committee has been carrying on. I trust that when his travels in India have come to a close, he will feel that these inspections have not been devoid of interest and value, and that they may be fruitful of practical results. I warmly hope, and in this I know I have all the other members of this Committee with me, that Sir Richard Jackson's visit to India following so closely on that of the Lancashire industrial delegation will mark the beginning of a new era in the relations between India and Lancashire, that the period of mistrust and misconception is over, and that a period of mutual understanding and friendly co-operation will be established.

3. I may be forgiven if on this occasion I venture to make a reference to ourselves. Business acumen, an aptitude for scientific research and an ability to apply its results to practical uses, and a first-hand knowledge of agriculture drawn from all over India have been brought together on this Committee to tackle the various problems confronting the cotton industry of India. Every phase of the industry is represented on the Committee and to the divergence of our individual outlook but the unity of our common aim must be attributed the wide acceptability of the measures introduced by us. I say this all the more readily as I am conscious of how little I have contributed to the work of this Committee and how much India owes to the members who have so freely and ungrudgingly given of their time, energies and talents to the body of which we [illegible]

so cheerfully by members who must have been drawn away from their own concerns to attend to dry, unremunerative tasks.

4. The half-year that has just closed has been memorable as it [illegible] members' [illegible] acknow- [illegible] pride and [illegible] presenta-tives materially contributed to the knowledge, skill and wisdom which have solved the many thorny questions that stood in the way of [illegible] cotton between India and [illegible] iven to [illegible] of the [illegible] where there were inevitable differences the interests of the [illegible] should prevail.

5. I must now refer to the changes in the personnel of the Committee since we last met. Death has robbed us of one of our members, Rai Bahadur Rao Bikram Sinha who joined the Committee in 1926 as the representative of the cotton growing industry in the United Provinces. Mr. Sinha was noted for the interest he took in the agricultural problems of his province and we deeply regret his untimely death. Mr. J. H. Ritchie, our late Secretary, has taken the place of Mr. F J. Plymen as the [illegible] Central Provinces, [illegible] miss Mr. Plymen, [illegible] I am sure you wish me to express to him on your behalf our wishes for a happy retirement. I desire to extend a cordial welcome to Mr. J. Nuttall, who has been appointed as the representative of the cotton ginning and cotton manufacturing industry in the Madras Presidency in the place of [illegible] Fazl-i-Ali Khan who [illegible] Governor-General in [illegible] Ali retired, and to Rai Bahadur Lala Anand Sarup, who replaces the late Rai Bahadur Rao

Bikram Sinha as the representative of the cotton growing industry in the United Provinces.

6. I shall not detain you by referring to matters of importance on the Agenda. As usual, your detailed work has been facilitated by the preparatory work done on the Sub-Committees and I know you would like to proceed to deal with them. Your Excellency and Gentlemen, I thank you for the patience with which you have heard me."

His Excellency the Governor addressed the meeting as follows :—

" Sir Vijayaraghavacharya and Gentlemen,

Since I received your kind invitation to preside at one of the meetings of your Committee, I have been looking into its history and I find that you were constituted in 1921 as a result of the recommendations contained in the report of the Indian Cotton Committee of 1919 and were given definite legal status by the Indian Cotton Cess Act of 1923. You can therefore look back upon a period of 13 years of life—long enough, in these days of hustle, for you to claim to be an old established institution, especially when the claim is backed, as it is in your case, by a continuous tradition of useful work accomplished. For anyone who wishes to see for himself how useful your work has been I would recommend a comparison of present conditions with those recorded in the report of the Indian Cotton Committee of 1919 to show what progress has been achieved in the Cotton trade and industry largely by the efforts of your Committee. I esteem it a privilege therefore, Gentlemen, to be invited to attend one of your meetings. I am very grateful to you, Sir, for your invitation which I have accepted with the greatest pleasure.

You are lucky, particularly in these days of financial difficulty all round, to be able to command an assured income derived from a cess on the industry itself. Power, however, they say involves responsibility, and financial power as much as any other. I think you can fairly claim to have adequately discharged this responsibility, and I note with particular interest that you have been generous in the subsidies you have given to research throughout India on all matters connected with cotton. Bombay, which prides itself on being the premier cotton centre in India, naturally expects to have her share of your favours, and her claim has been met by the provision at Matunga of a Technological Laboratory which is investigating many of the problems connected with the spinning qualities of cotton. When I consider the amount of high-grade research work which is being done all over the world on the qualities of one vegetable hair, I am amazed as much at the extent of the subject as at the talent which has been devoted to it.

We hear much nowadays about propaganda. Recently I am interested to see that there has been some criticism of its evil effects as well as insistence upon the necessity thereof. Whatever our opinion on this question may be, there seems no doubt that no institution can thrive which does not pay some attention to publicity. I see that you have not neglected this aspect and that you have recently started a publicity branch. In its publications describing the aims and work of your

Committee, your doings in all directions are fully explained, and I need not delay you by going into them beyond recommending a perusal of those publications to all those who are in any way interested in any of the many branches of the Cotton Industry.

The importance of cotton in both the internal and external economics of India can hardly be over-estimated, and we in this Presidency are perhaps even more keenly interested than any other part of India. It is one of the money crops which gives the grower the means to buy his necessities and pay his taxes, and it is an important item in the trade between India and other countries. The international side has come prominently to the fore recently, and we have had the satisfaction of [illegible] that with Japan brought [illegible] Discussions with cotton [illegible] fruitful results may be expected. What particularly impresses me about the recent negotiations with Japan and Lancashire has been not so much the actual results achieved, though these in themselves are of paramount importance, as the fact that a new spirit appears to have been infused into the negotiations that have been carried on. I am afraid the relations between India and Lancashire have, to some extent, been embittered by the history of the question in the past and the fact that it has been made a political question rather than an economic and commercial one, as it should be. I think that many people, both in India and Lancashire, have now come to realise how very useful India and Lancashire can be to each other if they work together in a spirit of co-operation. I am sure Sir Richard Jackson, whom I am particularly glad to see here to-day, will bear me out when I say that Lancashire has now realised how much she stands to gain in improving her commercial position if she does everything in her power to extend her purchases of Indian cotton. In spite of the great extension that has recently taken place in the Indian textile industry, there are still large sections of the trade in which India and Lancashire do not compete with each other. The possibilities of co-operation must therefore be wide, and I am very glad indeed to see that a more friendly spirit is now prevailing and that the negotiations that have recently [illegible]

be made, and it is my earnest hope that co-operation of this sort may lead [illegible] fact that Lancashire and India [illegible] cementing a permanent and [illegible]

India, on account of its size and its many varieties of soil and climate, has a correspondingly great range of varying types of cotton, and hence, not only are the problems presented by the cotton industry in India [illegible]

of vast areas in Sind for the growing of irrigated cotton under the Lloyd

Barrage. Here, again, I would suggest that much can be done by Governments and Industrialists working hand in hand to ensure a big increase in the production of the right kind of cotton. The potentialities of Sind as a producer of long staple cotton are immense and should be taken into account in any estimate of cotton developments in India and in the world generally. Cotton, like many other products, has been severely affected by the slump which started in 1929, and the great fall in the prices of cotton has hit very hard all those connected with the industry, and not least the primary producer. That primary producer, namely, the agriculturist, who is the least organised and yet most important of all those in the cotton industry, deserves the greatest possible consideration from anybody which has to do with that industry. I am glad that on your Committee agricultural interests are represented, and I have no doubt that the representatives of other interests have also at heart the welfare of the grower himself. It may be, however, that others are not always so solicitous for his welfare, and anything that you can do by marketing, organisation, legislation or any other means to increase his *income and therewith the general welfare of the country* is work worth doing. In a recent international survey of world agriculture, the writers dealing with India make the following remark :—

> 'The main Wealth of India must lie in agriculture, and the very meagre standard of living throughout the country can only be raised by steady improvement in the produce itself and in the methods of placing it on the world market.'

These duties you are most helpfully performing. I regard your work, however, not only as important from the point of view of cotton, but as something more than this, namely, a hopeful model of human action, the disinterested pooling of many brains for technically and socially desirable ends. I have been told of the time given up by hard-pressed business men to work on this Committee and its many Sub-Committees, and I have been informed of the manner in which the essentials of problems are grasped and analysed and plans of action developed. I feel sure that a body which has this type of service at its command cannot but go on from one stage of usefulness to another, and must set an example of a form of co-operative and planned endeavour which is an essential of progress in the present age ; an example which will, I hope, be followed, in due course, by the leaders of other important industries in India ".

Proposing a vote of thanks to His Excellency the Governor, *the Vice-President* expressed his pleasure at having His Excellency the Governor at the meeting of the Committee and for giving two hours of his precious time to listening to discussions on the subjects. Many Governors had honoured their meetings with their presence but their usual practice was to retire when the formal part of the proceedings was over. This time they had the support of His Excellency in their proceedings and he would assure His Excellency that if he could spare the time to listen to discussions at some meetings on matters more domestic than international he would be able to realize the difficulty they were up against at times from the various provincial Governments. It was peculiarly fitting that

the very first formal visit from the Governor to any department should be in connection with cotton and he felt that the Committee would be very grateful if every time they met in sessions His Excellency would repeat the honour he had done them to-day.

He formally moved :—

RESOLUTION—" That the best thanks of the Committee be voted to His Excellency the Governor for the honour he had done in visiting us this morning."

His Excellency replying expressed his appreciation of the kind words of the Vice-President and wished he had more time to listen to their discussions However he would follow the Committee's deliberations with the greatest interest and care in the press He was sure that Sir Richard Jackson would get valuable assistance from the Committee and that he had enjoyed the cordial reception he had received from the Committee He thought that Sir Richard Jackson was only there to-day to clear any little misunderstanding there might have been and that he would return to Bombay from his tour of the country with the firm conviction that there was hope for India and Lancashire and that they should get down to a real business understanding in the future. Sentiment was a great thing but business was the bedrock on which sentiment had to be built.

The President said that the Honourable Khan Bahadur Mian Sir Fazl-i-Husain had asked him to read the following message to the Committee on his behalf :—

" It has been my pleasant duty to express the cordial appreciation of the Government of India of the excellent work which the Indian Central Cotton Committee has been doing. May I, with your permission, trespass upon your time for a few moments not merely to assure you of my warm interest in your proceedings, but to appraise you of the very great responsibility which is yours in dealing with the question of the larger utilisation of Indian cotton India has been in the grip of intense agricultural depression for the last two or three years, but cotton has had this advantage over many other commodities that there is an assured market for a considerable portion of the Indian cotton crop in the immediate future But looking ahead, our efforts no doubt will be directed along two distinct lines—firstly to broaden the basis of demand for Indian cottons and to assure our position in as many markets as possible, and secondly to secure a better balance in the production of different types of Indian cotton. The market for Indian cotton amongst Indian mills requires closer study. While cotton growers should give constant attention to the development of those types of cotton of which the supply is at present inadequate or uncertain, it is expected that Indian mills as a class will show enterprise in seeking for Indian cotton to meet their needs and in improving their methods for the utilisation of indigenous cotton. In [illegible] in such [illegible]s as Sind—where a rapid extension in the [illegible] ation

is taking place under favourable conditions of irrigation and where the development of the most suitable types is of outstanding importance—Indian cotton millowners should follow the example of millowners in other parts of the world and do something definite for the production of the best types of cotton. The reports of the Sind Agricultural Department show that some long staple types capable of replacing imported African and American cotton have shown considerable promise and that there may even be scope for the production of Egyptian cotton of good quality at any rate on a limited scale where conditions are particularly suitable. The Agricultural Department cannot recommend average zamindars and cultivators to take up a new cotton the behaviour of which is in any way uncertain, for the small agriculturist cannot afford experiments. But when results have been obtained on a research station indicating that certain long staple types are really promising, it would surely be practicable for their extended experimental cultivation to be arranged for by an association or a syndicate of millowners who would benefit directly from a supply of such high class cotton.

It is not sufficient to improve the quality of our cottons but it is necessary to secure better organisation of cotton marketing. I recognise that the marketing of cotton in India is probably more highly organised than that of any other staple commodity and I know that the Indian Central Cotton Committee has led the way in attempts to improve the marketing of Indian agricultural produce. My object in mentioning cotton marketing at the present moment is to assure the Committee of my support in any practical measures which they may undertake and to emphasise the opportuneness of the present time for a special effort in this direction. You will be glad to know that the Imperial Council of Agricultural Research, a body with which you have close and happy relations, hopes shortly to have a specialist in the organisation of the marketing of agricultural produce on its staff. I have no doubt that the Committee's experience will be of great assistance to him and I hope that in return he will be able to be of assistance to the Committee in its further efforts to improve the marketing of Indian cotton.

Your work is of the highest importance to your country—agriculture and industry meet in you. All countries are striving hard to get on, no country can afford to be content with its present position. Unless you are advancing you are bound to be left behind, and this is my excuse for trespassing upon your courtesy to deliver this message to you."

SUBJECT 2.—*Confirmation of Minutes.*

The Minutes of the previous meeting were confirmed.

SUBJECT 3—*Retirement of members by Rotation.*

The Secretary's note was recorded.

SUBJECT 4 —*Appointment of Vice-President and Sub-Committees.*

Mr. Saklatvala said he had very great pleasure in proposing :—

RESOLUTION—"That Sir Purshotamdas Thakurdas be re-appointed Vice-President for the year 1934-35."

In proposing the re-appointment of Sir Purshotamdas Thakurdas as Vice-President for 1934-35, *Mr. Saklatvala* expressed his appreciation of the services which Sir Purshotamdas Thakurdas had rendered both to the country and to the Committee The guidance of Sir Purshotamdas to the various Sub-Committees had been valuable. This Committee was to be congratulated on getting him for another year. He trusted the Committee would carry his proposal with acclamation.

Rao Bahadur M. G. Deshpande seconded the resolution.

The Vice-President said that when he came to the meeting he was somewhat surprised by the President insisting upon naming him for the Vice-Presidentship for the coming year. In view of his recent illness, during which he often worked in his bedroom, he expected to be relieved of a further year of burden. He greatly appreciated the further mark of confidence in him, but wanted to make it clear that should his physical health fail, he would have to depend upon some other member of the Committee to carry on, with himself only as the nominal figurehead.

The resolution was carried with acclamation.

STANDING FINANCE SUB-COMMITTEE.

The President moved :—

RESOLUTION—"That the following members be appointed to form the Standing Finance Sub-Committee for the financial year 1934-35 :—

Sir Purshotamdas Thakurdas,

Dewan Bahadur Sir T. Vijayaraghavacharya (ex-officio),

Mr. S. D. Saklatvala,

Sardar Rao Bahadur Bhimbhai Ranchodji Naik,

Mr. J. Vonesch,

Rao Bahadur G. R. Kothare,

Mr. J. O. G. Barnes,

Mr. Chunilal B. Mehta and

Mr. H. B. Moore."

Khan Bahadur Sardar Habibullah in seconding the resolution suggested that in view of the fact that the whole of the Committee's detailed work was done in the Sub-Committees, therefore a large range of members

should be considered while appointing members to these Sub-Committees as being of more assistance than appointing the same members on the various Sub-Committees.

The Vice-President explained that the policy hitherto had been to have a large range, but the difficulty had been that the Committee wanted members to be as near Bombay as possible. All these points had therefore been considered.

The resolution was carried unanimously.

The President moved :—

RESOLUTION—"That the following members be appointed to form the Cotton Ginning and Pressing Factories Sub-Committee :—

The Vice-President,

Mr. J. Vonesch,

Mr. J. O. G. Barnes,

Mr. Chunilal B. Mehta,

Mr. G. B. Kotak,

Mr. J. Nuttall,

Mr. W. Roberts,

Mr. E. J. W. Plummer,

Mr. Y. G. Deshpande,

Mr. H. B. Moore,

Rao Bahadur M. G. Deshpande and

Lala Shri Ram (Co-opted member)."

The Vice-President seconded the resolution which was carried unanimously.

The President moved :—

RESOLUTION—"That the following members be appointed to compose the Local Sub-Committee :—

Sir Purshotamdas Thakurdas,

Dewan Bahadur Sir T. Vijayaraghavacharya,

Mr. S. D. Saklatvala,

Sardar Rao Bahadur Bhimbhai Ranchodji Naik,

Mr. J. Vonesch,

Mr. H. B. Moore,

Mr. Girdharlal B. Kotak,

Mr. J. O. G. Barnes,

Mr. Chunilal B. Mehta and

Mr. C. V. Sane."

The President moved the following resolution :—

RESOLUTION—"That the following members be appointed to form the Agricultural Research Sub-Committee :—

I. The President—Dewan Bahadur Sir T. Vijayaraghavacharya (ex-officio),

II. The Vice-President—Sir Purshotamdas Thakurdas (ex-officio),

III. The Director, Institute of Plant Industry, Indore — Mr. F. K. Jackson (ex-officio),

IV. Co-operative Representative—Rao Bahadur M. G. Deshpande (ex-officio),

V. Cotton Growers' Representative—Mr. W. Roberts,

VI. Cotton Trade Representative—Mr. H. B. Moore,

VII. Four Agricultural Officers—

Dr. W. Burns,
Mr. J. H. Ritchie,
Mr. H. R. Stewart,
Mr. V. Ramanatha Iyer,

VIII. Additional Members—

Mr. B. C. Burt,
Dr. L. C. Coleman,
Mr. D. N. Mahta,
Rai Saheb Thakur Ram Prasad Singh,
Mr. H. H. Pandya,
Mr. W. J. Jenkins,
Mr. P. B. Richards,
Mr. S. V. Ramamurty,
Mr. C. V. Sane,
Mr. Chunilal B. Mehta,

IX. Co-opted members—Cotton Research Botanist, Lyallpur and Cotton Research Botanist, Parbhani and

X. The Secretary."

This was seconded by *Mr. Ritchie* and carried unanimously.

The President moved the following resolution :—

RESOLUTION—"That the following members form the Technological Research Sub-Committee :—

The President (ex-officio),

The Vice-President (ex-officio),

Mr. S. D. Saklatvala,

Mr. B. C. Burt,

Mr. H. R. Stewart,

Dr. W. Burns,

Mr. Chunilal B. Mehta,

Mr. Y. G. Deshpande,

Seth Naranlal Jivanlal,

Mr. S. V. Ramamurty,

Mr. H. B. Moore,

Lala Shri Ram,

Mr. E. J. W. Plummer and

Dr. Nazir Ahmad,

The Bombay Millowners' Association, The Ahmedabad Millowners Association and The East India Cotton Association will be asked nominate two representatives each."

The Vice-President seconded the resolution which was carried.

The President moved the following resolution :—

RESOLUTION—"That the Research Students Selection Sub-Committee be composed of the following members :—

The President,

The Vice-President,

Mr. B. C. Burt,

Dr. W. Burns,

Mr. P. B. Richards,

Mr. H. R. Stewart,

Mr. J. H. Ritchie,

Mr. S. V. Ramamurty,

Dr. L. C. Coleman,

Mr. H. H. Pandya,

Mr. W. J. Jenkins,

Mr. F. K. Jackson,

Mr. C. V. Sane,

Dr. Nazir Ahmad."

Mr. Vonesch seconded the resolution which was carried.

The President moved :—

RESOLUTION—"That the Sub-Committee on Malpractices consists of the following members :—

The Vice-President,

Mr. H. B. Moore,

Seth Naranlal Jivanlal,

Mr. J. O. G. Barnes,

Mr. Chunilal B. Mehta,

Dr. W. Burns,

Sardar Sampuran Singh

with power to co-opt."

Mian Nurullah seconded the resolution which was carried.

The President moved the following resolution :—

RESOLUTION—"That the Cotton Forecast Improvement Sub-Committee be composed of the following :—

The President,

The Director General of Commercial Intelligence and Statistics,

The Director of Agriculture, Bombay Presidency,

The Director of Agriculture, Punjab,

The Director of Agriculture, Madras,

The Director of Agriculture, United Provinces,

The Director of Agriculture, Baroda,

The Director General of Commerce and Industry, H. E. H. the Nizam's Government, Hyderabad and

The Director of Land Records, Central Provinces and Berar."

Mr. Saklatvala seconded the resolution which was carried.

SUBJECT 5.—*Appointment of members on Board of East India Cotton Association.*

The President explained that until a formal amendment of the Articles of Association had been made, the Indian Central Cotton Committee, had to elect two out of the three gentlemen appointed. He suggested that nominations should be made in the order of votes secured by the members during their election at the last meeting of the Committee.

This was agreed to, and Mian Nurullah and Mr. N. M. Deskmukh were nominated to represent growers on the Board of Directors of the East India Cotton Association.

Mr. S. D. Saklatvala,

Mr. B. C. Burt,

Mr. H. R. Stewart.

Dr. W. Burns,

Mr. Chunilal B. Mehta,

Mr. Y. G. Deshpande,

Seth Naranlal Jivanlal,

Mr. S. V. Ramamurty,

Mr. H. B. Moore,

Lala Shri Ram,

Mr. E. J. W. Plummer and

Dr. Nazir Ahmad,

The Bombay Millowners' Association, The Ahmedabad Millowners' Association and The East India Cotton Association will be asked to nominate two representatives each."

The Vice-President seconded the resolution which was carried.

The President moved the following resolution :—

RESOLUTION—"That the Research Students Selection Sub-Committee be composed of the following members :—

The President,

The Vice-President,

Mr. B. C. Burt,

Dr. W. Burns,

Mr. P. B. Richards,

Mr. H. R. Stewart,

Mr. J. H. Ritchie,

Mr. S. V. Ramamurty,

Dr. L. C. Coleman,

Mr. H. H. Pandya,

Mr. W. J. Jenkins,

Mr. F. K. Jackson,

Mr. C. V. Sane,

Dr. Nazir Ahmad."

Mr. Vonesch seconded the resolution which was carried.

The President moved :—

RESOLUTION—"That the Sub-Committee on Malpractices consists of the following members :—

The Vice-President,

Mr. H. B. Moore,

Seth Naranlal Jivanlal,

Mr. J. O. G. Barnes,

Mr. Chunilal B. Mehta,

Dr. W. Burns,

Sardar Sampuran Singh

with power to co-opt."

Mian Nurullah seconded the resolution which was carried.

The President moved the following resolution :—

RESOLUTION—"That the Cotton Forecast Improvement Sub-Committee be composed of the following :—

The President,

The Director General of Commercial Intelligence and Statistics,

The Director of Agriculture, Bombay Presidency,

The Director of Agriculture, Punjab,

The Director of Agriculture, Madras,

The Director of Agriculture, United Provinces,

The Director of Agriculture, Baroda,

The Director General of Commerce and Ind[illegible] H. E. H. the Nizam's Government, Hyderabad and

The Director of Land Records, Central [illegible] and Berar."

Mr. Saklatvala seconded the resolution [illegible].

SUBJECT 5.—*Appointment of [illegible] East India [illegible] Association.*

The President explained that [illegible] of Association had been made [illegible] had to elect two out of the [illegible] that nominations should [illegible] members during their [illegible]

This was agreed [illegible] were nominated to [illegible] East India Cotton [illegible]

SUBJECT 6.—*Cotton Policy in Surat.*

SUBJECT 7.—*Goghari cotton sowings in Navsari Tract.*

The question of the continuation of the present policy in regard to 1027 A.L.F. cotton, provoked exhaustive discussion as to the relative merits of 1027 A.L.F. and 1A and disclosed some divergence of opinion on the merits of the two strains of cotton, though there seemed to be general agreement on the subject of continuing the present policy of encouraging the growing of 1027 A.L.F. cotton over as wide areas as possible and of framing seed distribution schemes accordingly.

Dr. Burns, who thought the best course would be to distribute 1A north of the Tapti and 1027 A.L.F. south of it, till a better strain that suited both regions was evolved, went into the history of the controversy in regard to the merits of the two strains and recalled the successive steps which the Agricultural Department took on the recommendations of the Indian Central Cotton Committee and the varying reactions which the marketing fortunes of the two different strains evoked, when the Agricultural Department began to distribute seeds of both qualities of cotton after isolating several strains of which 1027 A.L.F. and 1A were found to be the purest and the best. Traders and cultivators had, however, found that 1027 A.L.F. fetched, on the balance, a better price than 1A, and, at any rate, with prospects in Lancashire in view, could count upon a wider market. Nevertheless, there were equally strong arguments in favour of 1A. Experimental tests and the experience of cultivators had established the superiority of 1A over 1027 A.L.F., in respect of yield per acre and ginning percentage, and there was no denying the fact that in the relative position of the two strains, the cultivator stood to gain by favouring 1A, in view of its higher acreage yield, irrespective of its marketing prospects in relation to those of 1027 A.L.F. Meanwhile two new factors had come into the field. The Sonsek Group of Co-operative Societies, who had set up a clamour in favour of 1A, had themselves to go in for 1027 A.L.F. following a marked deterioration in the seed of 1A. There was also an increasing demand for 1027 A.L.F. in Ahmedabad, as the purchases during the year had shown, and Lancashire was apparently satisfied with the results which experiments with this long-staple carried out through the Indian Cotton Enquiry Committee, Manchester, had yielded. The longer staple of 1027 A.L.F. was, therefore, a decisive point in favour of it considering its augmented market ability.

Demand for Long Staple and Spinning Qualities.

The real issue, therefore, which went in favour of 1027 A.L.F. was its better spinning quality and its longer staple—·91″ as against ·84″ of 1A—two facts which, from the point of view of the spinner and, incidentally that of the cultivator, overshadow its greater loss in blow room treatment. As Seth Kasturbhai Lalbhai pointed out in the course

of the discussion, this feature could always assure for 1027 A.L.F. a wider market. Also, there was always a difference of 3 to 5·7 counts in its favour which went to sustain its intrinsic worth at a higher level than 1A. Nevertheless, calculating the premium for 1027 A.L.F., at the rate of Rs. 11 per khandi, the grower realized Rs. 43-8-0 for 1A and Rs 39-9-0 for 1027 A.L F. per acre.

The difficulty lay, in spite of the intrinsically greater worth of 1027 A.L.F., in the fact that the cultivator, in the present scheme of prices, was not getting adequate price for 1027 A.L.F. The remedy pointed to a greater vigilence towards the marketing conditions, the need for which was becoming more apparent in view of the persistent campaign of the Sonsek group against 1027 A.L.F. The question of leaving the field clear to 1A could not be entertained if 1027 A.L.F. were not to be eventually elbowed out of the market, nor would the simultaneous distribution of the two varieties lead to anything but the mixing up of both the varieties. Another fact which had to be borne in mind was the increasing demand for long staple cotton,—a condition which 1027 A.L F. eminently satisfies,—in view of the new avenue of marketing which preference in Lancashire is bound to stimulate. This fact was re-emphasised by Sardar Sampuran Singh.

No decisive factor in favour of 1A

The fact that 1A brought greater profits to the cultivators, as Mr. Vonesch pointed out, was by no means a decisive and permanent feature in the market value of 1A, and hardly afforded a basis for a correct appreciation of its merits in relation to its prices, in view of the fact that 1A occupies a much smaller area than 1027 A. L. F and consequently has a less encumbered market in relation to its [illegible]

[illegible] the figures before the Committee, the difference in price between the two cottons varied only from Rs. 7 to Rs. 15 per khandy, but it was clear, from what the millowners had to say on the subject, that 1027 A.L.F. was worth Rs. 15–20 more than 1A. Nevertheless, 1A fetched more per acre of its produce than 1027 A.L.F. But there is also the added fact, to which Rao Bahadur Shirahatti drew attention, that 1A is grown in the same region as 1027 A.L.F. and shares its reputation; and the possibilities point in the direction of a decline in its prices if 1027 A.L.F. were to leave the field clear to it. Mr. Sane and Mr. P[illegible] view that the g[illegible] 1A north of th[illegible] interests of 10[illegible] A.L.F. lay in extending the markets, and with Lancashire stepping into the breach, prices of 1027 A.L.F. would be given a fillip. But as the position stood at present, there was no minimising the better financial returns which cultivators made out of 1A, both by reasons of its greater acreage yield and better ginning percentage. And though the [illegible] profits thus derived were dependent on very precarious [illegible]

yet be difficult to force the cultivators to give up 1A for 1027 A.L.F. Bombay Presidency used only ⅓rd of the seed of 1027 A.L.F. produced by the Agricultural Department and the rest went outside to Rajpipla and Chhota Udepur where, despite penalties against the use of any but 1027 A.L.F., certain strips along the border grew Goghari.

Boiled down to essentials, however, the question was whether the subsidising of Rs. 66,000 which the Agricultural Research Sub-Committee had recommended for financing the seed distribution scheme should go in favour of 1A or 1027 A.L.F. It was clear that the growing of both in allocated regions simultaneously presented administrative difficulties in addition to leaving inducements for the two varieties to be mixed up. On a long view, estimating the relative merits of both, the scales seemed to be definitely weighed down in favour of 1027 A.L.F. and the question of improving its marketing, and securing its better prices was one of better organization as well as of expanding markets, to which the encouraging assurances from Lancashire might well be supposed to make a significant contribution. The proposition on being put to vote, there was a general declaration in favour of the present policy in regard to 1027 A.L.F.

SUBJECT 8.—*Adoption of universal standards for Indian cottons.*

The *Vice-President,* moving a resolution thanking the East India Cotton Association and the Karachi Cotton Association for their co-operation in the preparation of common standards for Indian cottons, pointed out that after the necessary spadework, efforts in that direction had to be kept in abeyance, while the Delhi Conference for the Indo-Japanese negotiations was in deliberation. Little, therefore, could be done along the lines intended and it was felt that, in the circumstances, it was only right to defer the date, till the President of the East India Cotton Association was in a position to recommend certain types after having been to Karachi. One little difficulty which, however, could be got over by amending their Articles of Association was that any decision that was taken by the Standards Sub-Committee was not technically binding on their Association. October, it was suggested, would suit very well for starting the work and a beginning with *Desi* Bengals, Sind-Punjab and Rajputana according to the classification of the East India Cotton Association and all Punjab-American could be made, for which the necessary preliminary work had been done.

As to Oomras it was hoped that the East India Cotton Association would fall in with any suggestion the Committee might make regarding the co-operation of agricultural bodies with the Association in preparing the standards. In answer to a question if Bengal standards could now be prepared, it was explained that standards once passed should hold good throughout the season. Delay of a year was hardly of consequence after having done without standards for so long.

The resolution was carried.

SUBJECT 9.—*Proposed introduction* of a common unit for the purchase of seed cotton throughout India.*

The meeting passed a resolution approving of the policy advised by the Government of Bombay and the Government of the United Provinces that both the Railway maund of 82$\frac{2}{7}$ lbs, which is based on the tola, and the khandy of 784 lbs. based on the pound avoirdupois, should be retained and that efforts should first be directed towards eliminating unauthorised maunds and khandies It was pointed out that the Government of Bombay and the United Provinces had their systems of weight, one based on the tola and the other on the pound avoirdupois, and the views elicited from other provincial Governments had advocated the adoption of either of the two, according to the needs of the particular province. In the circumstances it was felt, there would be no agreement, if either was abolished and the best course open was to do away with unauthorised maunds and khandies

SUBJECT 10.—*Conference of workers on cotton growing problems—Reference from the Empire Cotton Growing Corporation*

This subject merely referred to the Conference of Workers on Cotton Growing Problems on a reference from the Empire Cotton Growing Association, and the Secretary's note inviting names of those officers who were likely to be in London on the occasion of the Conference to take place on the 18th and 19th July 1934 was recorded

SUBJECT 11.—*Quarters for the Director, Institute of Plant Industry, Indore.*

The subject which next came up for discussion was the provision of quarters for the Director, Institute of Plant Industry, Indore, out of the Committee's funds provided for the specific purpose of promoting agricultural research. It was conceded that the Board of Governors of the Institute as a directive body on which the Indian Central Cotton Committee was represented had the right to lay down its policy; but the main contention was whether the funds provided by the Committee for the specific purpose of promoting research could be diverted to undertakings not intended by the Committee, and in the face of the unanimous opposition of those who represented the Committee on the Board of Governors.

A constitutional issue.

The specific instance in which the proposal for providing quarters for the Director of the Institute was hurried through raised an issue which, if it was left alone, would, it was felt, set up a precedent which the Committee could not afterwards challenge Quite apart from the fact that the provision of quarters for the Director was no part of the objects for which the Committee gave away its funds. The Committee

*Appendix I (page 39)

which bore a substantial share in the annual budget expenditure of the Institute, in addition to having sunk Rs. 2,83,536-11-9 on capital expenditure, was entitled to demand that the grants made out of its funds were spent for the specific purposes for which they were intended and to call to account such as were not done. It was also maintained that the Rs. 40,000 allocated for the building purposes over the heads of those who represented the Committee on the Board of Governors was an enormous sum and out of all proportion to its utility, seeing that the sum so spent would be lost to the Committee for all time without any hope of return. Mr. Jackson, the Director of the Institute, contended that the proposed building did not involve the Committee in any new expenditure and that the expense incurred could be met by drawing on the savings from the Committee's previous grants which were effected by rigid economy in the Institute's expenses. It was pointed out to him that the Committee made its grants for specific purposes and the fact that it did not impose restrictions as to the method of spending them did not entitle the Institute to spend them in any manner it thought fit.

It was felt, therefore, in going into the question of next year's budget grant, that the Standing Finance Sub-Committee should go into the specific sum to be granted, not exceeding Rs. 1,15,000. An amendment to the original Resolution, reducing the budget of the Institute by Rs. 40,000 or such sum as the Standing Finance Sub-Committee might decide, was passed by a majority, four voting against it.

SUBJECT 12.—*The Trade Agreement with Japan.*

The work done by Sardar Rao Bahadur B. R. Naik and Mr. Vonesch as delegates of the Committee in connection with the Indo-Japanese Trade negotiations was accorded unstinted appreciation by the Committee. It was felt that the achievement made in regard to the cotton portion of the agreement with Japan was a matter for congratulation. It was stressed that in pressing the claims of Indian cottons, the interests of the growers had all along been the chief concern in which the millowners were quite willing to make whatever sacrifices they were urged to, in the firm belief that the prosperity of the industry was linked up with the interests of the growers. It was also urged that the work of the Special Sub-Committee to find new markets for short stapled Indian cotton should continue and that it should advise cotton growers as to what variety of cotton was likely to be in demand, both for home consumption and export abroad. It was obvious that the future of the short staple cotton, in so far as existing foreign markets gave any indications, was not particularly promising and the need at present was for exploring new markets. Meanwhile, a parallel need, with an eye to existing foreign markets and the tendency of Indian mills to go in for finer counts and consequently to use long stapled cotton, was to explore the possibilities of extending the areas under medium and long stapled cottons and to that end, to test medium stapled cotton in areas at present under short stapled cotton.

Incidentally, the problem of converting such areas, particularly those in the Central Provinces and Berar into long or medium stapled cotton growing areas did not afford basis for optimism and, for a long time to come, the problem of finding markets for varieties now being produced would remain. Lancashire, whose largest customer was India, might, it was urged, use more cotton of the kind that Japan and China can afford to use at present, especially that produced in Berar and the Central Provinces, by altering their machinery to suit the requirements of short stapled cotton. The need, however, for the establishment of a better proportion between long, medium and short stapled cottons could not be minimised in view of the changed conditions of spinning and the prospects of yet more changes looming ahead. There was no good reason to suppose that, at the end of the three years which limit the life of the Indo-Japanese Trade Agreement, a new agreement with Japan on the same lines would be possible; and in the meantime, with the creation of new cotton growing tracts in Sind which afford enormous possibilities for the production of long stapled cotton, it might be possible to shape the production of cotton in conformity with the demands of foreign markets.

In the main, however, our object should be to grow a cotton, wherever possible, which the Indian mills used, and for which there was a world demand. The Agreement with Japan could not be taken as an unmixed blessing, seeing we were tied down to definite commitments in regard to the purchase of manufactured fabrics from her.

The subject was wound up by the President testifying to the magnanimity and statesmanship which Indian manufacturers displayed in regard to the interests of the growers, even when they apparently came into conflict with their own.

SUBJECT 13.—*Greater use of Indian cotton in the United Kingdom.*

India has been by far and away the biggest customer the United Kingdom has had for her manufactured fabrics, and the reciprocal obligations on the latter, reinforced by political affiliations which intimately bind up the fortunes of the two countries together, ought to ensure a sufficiently dependable outlet for her raw cotton. It was some consolation that the United Kingdom, as Sir Richard Jackson who opened the discussion assured the Committee, was making experiments with short stapled Indian cottons and that they had given satisfaction [illegible] was also evident t[illegible] use for the kind [illegible] been using. Recent efforts have shown that the production of [illegible] staple cottons in areas hitherto given to producing short [illegible] fraught with various difficulties, not the least among which [illegible] poverty and illiteracy of the Indian cultivator. Attempts [illegible] made to try longer staples on hitherto unexploited areas, [illegible] Sind, but it could not be denied that the bulk of the cotton [illegible] continue to be of short staple type, and meanwhile the [illegible]

finding market for the grower would remain as insistent as ever. The possibilities of raising more long stapled cottons, though hopeful on a long view, did not answer immediate exigencies. The Committee on its part was anxious to push those varieties which commanded a world market and, to that end, has been organizing research on various staples. Nonetheless Lancashire, with her long experience in textile manufacture could speed up tests on short staples and explore the possibilities of putting short stapled Indian cotton to greater use along lines which China and Japan have found practicable. It was also necessary for Lancashire to recognize that what little was produced in India of long stapled cottons found ready market in India, and with its output so restricted, it would not be possible for Lancashire to get much of that variety unless she was prepared to pay higher premium. It was, however, recognized that Lancashire, having to compete in the world market, would find it difficult to maintain her manufactures at competitive rates without access to raw cotton at prices that would enable her to sell her finished goods at remunerative rates. The best remedy, therefore, in the existing circumstances, Mr. Chunilal B. Mehta declared, in the course of the discussions, seemed to be to give effect to the resolution of the Indian Central Cotton Committee passed at Karachi in February 1933, asking for a tariff preference for Indian cotton which would enable Indian cotton to sell on a larger scale in Lancashire.

SUBJECT 14.—*Reduction of railway freight on cotton—Resolution to be moved by Rao Bahadur G. R. Kothare.*

Rao Bahadur Kothare who moved the resolution for the reduction of Railway freight on cotton pointed out that the precarious lookout for the cultivator occasioned by a general collapse of the prices had worsened to despair by the maintenance of Railway freights at an exhorbitant level. He recalled the recommendations of the Indian Central Cotton Committee made as far back as 1930 for a reduction of Railway freights, made to the Government of India. Ginning and pressing rates had gone down but relief had not come to the cultivator because the persistence of the present high level of Railway freight had dogged the free flow of cotton according to demand. Mr. Roberts supporting the resolution stated that the present railway freight on cotton from the Punjab to Bangalore was Rs. 6 per bale as against Rs. 3-8-0 by sea through Karachi, and as a result of his representation the Railway Board had offered to reduce the freight to Rs. 3-5-0, but on an examination of the details obtained, it was found that the North Western Railway had made no reduction in their share of the transport, though the others involved must have made reductions from anywhere between 100 per cent. to 40 per cent. Almost all the Railways belonged to the State, and there ought to be a uniform policy for all and the Railway Board ought to have powers to compel through telescopic rates, as if dealing with one railway system. The resolution on being put to vote was carried unanimously.

SUBJECT 15.—*Half-yearly Report* of the Publicity and Propaganda Officer.*

The next subject to come up was the Half-yearly Report of the Publicity and Propaganda Officer, reviewing the work done by him in diffusing knowledge of important economic improvements effected in Indian cottons as a result of various research schemes working under the auspices of the Committee

The valuable assistance received from the Publicity Officer in the extension of cotton cultivation in the Right Bank areas of the Indus in Sind was particularly appreciated. In adopting the report, mention was made of the notable assistance given by the Publicity Officer in connection with the Indian Empire Exhibition recently held at Lahore.

The Vice-President expressed gratification at the testimony borne to the efforts of the Publicity Officer from unexpected quarters, and felt sure that Mr. Mihra would give more time to touring and justify the addition of the Publicity Department

SUBJECT 16.—*Report of the Cotton Forecast Improvement Sub-Committee.*

In view of the criticisms levelled against Provincial and All-India Forecasts, the Cotton Forecast Improvement Sub-Committee had been appointed to investigate the causes which led to the forecasts not being as reliable as could be; this Sub-Committee recommended, among others, a scheme of two years' tenure at an estimated cost of Rs. 10,694 for the improvement of the cotton forecasts of the Bombay Presidency. The resolution adopting the report of the Sub-Committee was carried.

SUBJECT 17.—*Technological Research—Progress Report† of the Director, Technological Laboratory.*

SUBJECT 18.—*Technological Research—Report of the Technological Research Sub-Committee.*

The [illegible]
M[illegible]
eff[illegible]
wh[illegible] the spinning and other tests [illegible] the Laboratory, were done to the [illegible]

The report of the Technological Research Sub-Committee which recommended the renewal of the [illegible] tory which would expire on 31st [illegible] years, on a revised scale of salary [illegible] present salary, is a substantial [illegible] adopted The report also [illegible] entrants as Junior Testers and the [illegible] of the 10th anniversary of the Laboratory.

SUBJECTS.—19 *to* 22, 24 *to* 28, 30, 34 *and* 35—*Reports of the Agricultural Research Sub-Committee and the Standing Finance Sub-Committee, and Agricultural Research Schemes—Aims, Objects and Results.*

**Report of the Agricultural Research Sub-Committee.*

The Committee proceeded to consider the demand for grants for research and seed schemes in the order of precedence as drawn up by the Agricultural Research Sub-Committee.

CLASS I—SPECIAL SCHEMES.

(1) *The Punjab White-Fly Scheme.*—The Punjab White-Fly Scheme had made good progress during the last three years, but several aspects of it had remained untouched and Mr. Stewart had put up proposals for extending the scheme for a further three years in order to try out all the possibilities. The Agricultural Research Sub-Committee examined the proposals and recommended a curtailment of the programme to two years instead of three, by eliminating such items of the programme as appeared to be more or less of academic interest. The scheme was approved according to the recommendations of the Agricultural Research Sub-Committee.

(2) *Punjab Spraying Trials Scheme.*—During the investigations of the White-Fly Scheme certain insecticides were found very effective in killing the pests and the Committee, on the recommendations submitted had sanctioned a scheme for one year at a cost of Rs. 11,250 for spraying 2,000 acres of cotton with some of the insecticides, and though 1,900 acres were actually sprayed during the year, there was a saving of nearly half the funds granted ; so an additional amount of Rs. 1,250 would enable the scheme to be extended for a year more. The Punjab Provincial Cotton Committee which considered the results so far obtained had strongly felt that a year's trial would be too inadequate to give any indication as to their utility, but in view of their demonstrable successes should be given a trial for a year or two more. The Agricultural Research Sub-Committee had also approved of this proposal and the scheme as recommended was approved.

(3) *Seed Distribution and Extension Scheme, Tirupur.*—Rao Bahadur Ananda Rao referred to the appointment by the Committee of a Business Manager to help the group of Co-operative Societies in the Coimbatore District in the grading of cotton in order to spread an improved variety of Cambodia cotton, for a period of five years. The Business Manager took up his work in 1931 and his term would expire in 1936, but in the meanwhile the Committee had sanctioned another scheme for the distribution of Co. 2 seed in the Tirupur area and had entrusted the Business Manager with this scheme also which would last till 1937. The proposal was therefore to extend his term till the end of the Seed Scheme and to

* Appendix IV (page 51).

provide him with clerical assistance and office accommodation, as the Co-operative Societies who had undertaken this part of the bargain had failed to keep to it after the first year. The Agricultural Research Sub-Committee while approving of part of the proposal thought it too early to consider extension of his appointment, and the proposal was approved according to its recommendation

(4) *Surat Cotton Seed Distribution and Extension Scheme* (*Subject* 27).—This scheme which was, as Dr. Burns explained, only a continuation of the policy of spreading 1027 A.L F in Surat, would involve a further sum of Rs. 66,390 and had been approved by the Agricultural Research Sub-Committee. It would be extended over a period of five years, and in view of the danger to which it was exposed, this propaganda to cover the whole area as quickly as possible was necessary and the amount sanctioned would be spent on the staff engaged for the purpose The proposal was approved by the Committee.

CLASS II—NEW RESEARCH SCHEMES.

(1) *Scheme for survey of the disease of malformation in Punjab American cottons* (*Subject* 20)—This was a proposal for a grant of Rs. 2,674 for the provision of an additional assistant who would work under the Cotton Research Botanist in ascertaining the extent to which the disease of malformation which attacked American cotton in the Punjab was prevalent. This disease was serious enough to warrant a research of this nature, but the Punjab Government had not come forward to help, and the scheme, as intended at present, was only to find out the incidence and importance of the disease. The scheme as recommended by the Agricultural Research Sub-Committee was sanctioned.

(2) *Central Provinces and Berar Entomological Scheme* (*Subject* 19).—The Boll Worm was doing considerable damage in the Central Provinces and Berar, and the scheme, which was sanctioned by the Agricultural Research Sub-Committee and was meant to find out the extent of the damage and to see if it would be worthwhile applying the methods recommended in the Surat Boll Worm Research Scheme, was sanctioned for two years at a total cost of Rs. 6,773

CLASS III—NEW SEED SCHEMES.

Among the new seed schemes approved by the Committee on the recommendations of the Agricultural Research Sub-Committee was one *for the multiplication and supply of pure Banilla cotton seed on the Deccan Canals* (Subject 26) and (2) another *for the extension of long staple cotton in the Central Provinces and Berar* (Subject 35). Central Provinces and Berar have been principally short stapled cotton growing areas and very largely dependent on a single buyer It was thought desirable, in order to simplify this problem, to maintain a reasonable proportion between short, medium and long stapled cottons.

(3) Another scheme submitted by the Director of Agriculture, United Provinces, *for the propagation of C. 402 cotton in the Hardoi and*

to take in hand the actual work of extensions. The Committee was not committed to any immediate expenditure on the proposed extensions, and the Finance Sub-Committee would consider the suggestion of

expressing its opinion on them, and put up proposals if necessary before the full Committee. Meanwhile, the purchase of the plots was made in anticipation of extension, as they were adjacent to the Laboratory grounds and thus offered suitable sites for the extension of the blow-room, yarn testing section and the research laboratory, and as could be seen from the proposals put up by Dr. Nazir Ahmad, the extension was unavoidable as the grounds owned by the Laboratory did not provide sufficient building area for the purpose.

The report of the Standing Finance Sub-Committee was adopted and a resolution was passed approving of the Revised Estimates for 1933-34 and the Budget for 1934-35 as amended by the Committee.

Agricultural Research Schemes—Aims, Objects and Results.

In view of the impending consideration of the various research schemes and of financing their annual expenditure, the Vice-President drew attention to the following statement, which the Secretary had at his suggestion prepared showing the opening balances, as anticipated on the 1st April every year during the next five years:—

	Rs.
1st April 1934	25,70,000
„ „ 1935	17,09,467
„ „ 1936 . ..	12,78,674
„ „ 1937	9,20,075
„ „ 1938	7,84,002

In estimating these figures, the Secretary had assumed that Cotton Cess Collections would amount to Rs. 5 lakhs in round figures and that all the new extension schemes which had been approved by the Agricultural Research Sub-Committee at its last meeting might be voted But no provision was made for expenditure on the Institute of Plant Industry after 31st March 1935 when the Committee's contract with the Institute would expire, or on the United Provinces Pink Boll-Worm Extension Scheme, as the scheme had been held up through suspense as to the intentions of the Government of the United Provinces Mr. Vonesch pointed out that the estimates were based on the assumption that apart from schemes at present under consideration, no new schemes would be sanctioned during the next five years, a course which seemed unthinkable. Every scheme was entered into with an eye to definite economic results, and it were better that those which did not [illegible]

RESOLUTIONS.

The Trade Agreement with Japan.

1. "That the Indian Central Cotton Committee marks its approval in a very cordial manner of the work done by Sardar Rao Bahadur B. R. Naik and Mr. Vonesch as delegates of this Committee in connection with the Indo-Japanese trade negotiations".

Vote of thanks to His Excellency the Governor of Bombay.

2 "That the best thanks of the Committee be voted to His Excellency the Governor for the honour he had done in visiting us this morning".

Appointment of Vice-President.

3 "That Sir Purshotamdas Thakurdas be re-appointed Vice-President for the year 1934-35".

Standing Finance Sub-Committee.

4. "That the following members be appointed to form the Standing Finance Sub-Committee for the financial year 1934-35 .—

Sir Purshotamdas Thakurdas,
Dewan Bahadur Sir T Vijayaraghavacharya (*ex-officio*).
Mr S D Saklatvala,
Sardar Rao Bahadur Bhimbhai Ranchodji Naik,
Mr. J. Vonesch,
Rao Bahadur G R. Kothare,
Mr J. O G Barnes,
Mr. Chunilal B. Mehta and
Mr. H B Moore".

Cotton Ginning and Pressing Factories Sub-Committee.

5 "That the following members be appointed to form the Cotton Ginning and Pressing Factories Sub-Committee :—

The Vice-President.,
Mr J Vonesch,
Mr J O G Barnes,
Mr Chunilal B. Mehta,
Mr G. B Kotak,
Mr J. Nuttall,
Mr W. Roberts,
Mr E. J W. Plummer,
Mr. Y. G. Deshpande,
Mr H B. Moore,
Rao Bahadur M. G Deshpande and
Lala Shri Ram (Co-opted member)".

RESOLUTIONS.

The Trade Agreement with Japan.

1. "That the Indian Central Cotton Committee marks its approval in a very cordial manner of the work done by Sardar Rao Bahadur B. R. Naik and Mr. Vonesch as delegates of this Committee in connection with the Indo-Japanese trade negotiations".

Vote of thanks to His Excellency the Governor of Bombay.

2. "That the best thanks of the Committee be voted to His Excellency the Governor for the honour he had done in visiting us this morning".

Appointment of Vice-President.

3. "That Sir Purshotamdas Thakurdas be re-appointed Vice-President for the year 1934-35".

Standing Finance Sub-Committee

4 "That the following members be appointed to form the Standing Finance Sub-Committee for the financial year 1934-35:—

Sir Purshotamdas Thakurdas,
Dewan Bahadur Sir T Vijayaraghavacharya (*ex-officio*).
Mr. S D. Saklatvala,
Sardar Rao Bahadur Bhimbhai Ranchodji Naik,
Mr J Vonesch,
Rao Bahadur G R Kothare,
Mr. J. O. G. Barnes,
Mr. Chunilal B Mehta and
Mr. H. B Moore".

Cotton Ginning and Pressing Factories Sub-Committee

5 "That the following members be appointed to form the Cotton Ginning and Pressing Factories Sub-Committee:—

The Vice-President,
Mr. J. Vonesch,
Mr. J. O G Barnes,
Mr. Chunilal B Mehta,
Mr. G. B Kotak,
Mr. J Nuttall,
Mr. W Roberts,
Mr. E. J. W. Plummer,
Mr. Y. G. Deshpande,
Mr. H. B Moore,
Rao Bahadur M. G Deshpande
Lala Shri Ram (Co-opted mem'

Technological Research Sub-Committee.

8. "That the following members form the Technological Research Sub-Committee :—

The President, (*ex-officio*),
The Vice-President, (*ex-officio*),
Mr S. D Saklatvala,
Mr B C Burt,
Mr H. R Stewart,
Dr W Burns,
Mr Chunilal B Mehta,
Mr Y G Deshpande,
Seth Naranlal Jivanlal,
Mr S V Ramamurty,
Mr *H B. Moore*,
Lala Shri Ram,
Mr. E J W. Plummer and
Dr. Nazir Ahmad,

The Bombay Millowners' Association, The Ahmedabad Millowners' Association and The East India Cotton Association will be asked to nominate two representatives each".

Research Students Selection Sub-Committee.

9 "That the Research Students Selection Sub-Committee be composed of the following members .—

The President,
The Vice-President,
Mr. B. C Burt,
Dr. W. Burns,
Mr. P. B. Richards,
Mr. H R Stewart,
Mr. J H. Ritchie,
Mr S. V. Ramamurty,
Dr L. C Coleman,
Mr. H. H. Pandya,
Mr. W. J. Jenkins,
Mr. F. K Jackson,
Mr. C. V. Sane,
Dr. Nazir Ahmad".

the *khandy* of 784 lbs., which is based on the pound avoirdupois, should be retained and that efforts should first be concentrated on the elimination of unauthorised maunds and unauthorised *khandies* ".

Quarters for the Director, Institute of Plant Industry, Indore

14. "That the Budget of the Institute of Plant Industry, Indore, for 1934–35 be reduced by Rs 40,000 or such sum as the Standing Finance Sub-Committee might decide "

Reduction of Railway Freight on Cotton

15 " In view of the low prices of cotton continually for the last four or five years, the Indian Central Cotton Committee earnestly requests the Indian Government to prevail upon the Railway Board to reduce the railway freight on cotton so as to afford relief to the agriculturists ".

Half-yearly Report of the Publicity and Propaganda Officer

16. "That the Report of the Publicity and Propaganda Officer be adopted ".

Report of the Cotton Forecast Improvement Sub-Committee.

17. "That the Report of the Cotton Forecast Improvement Sub-Committee be adopted ".

Progress Report of the Director, Technological Laboratory.

18. "That the Progress Report of the Director, Technological Laboratory, be adopted ".

Report of the Technological Research Sub-Committee.

19. "That the Report of the Technological Research Sub-Committee be adopted ".

Report of the Agricultural Research Sub-Committee

20. "That a special meeting of the Agricultural Research Sub-Committee be fixed as early as feasible in April, but not later than May 15th, to consider the papers on Subject 34 of the Agenda of this meeting, and that all members of the Agricultural Research Sub-Committee, specially technical members, be asked to submit their memoranda to the Secretary not later than 31st March 1934 ".

separate cotton maund of 28 lbs. They would not be opposed to a system based on the cwt. by defining a bhoja as 3½ cwts. and a khandi as 7 cwts.

A summary of the opinions of the East India Cotton Association and the Karachi Cotton Association who were also consulted by the Bombay Government is given below :—

The East India Cotton Association state that in the opinion of their Board the adoption of measures towards the unification of weights in all cotton transactions throughout India is not feasible at present. They advocate the standardisation of the Bombay khandi of 784 lbs. for all transactions in cotton, *kapas* and cotton seed in the Presidency of Bombay excluding Sind, but including Indian States in the Presidency limits.

The Karachi Cotton Association are in favour of the adoption of a uniform system of weights throughout India particularly in the Bombay Presidency. The standard they consider suitable is the railway maund of 82 2/7 lbs.

The views of the Indian Cotton Committee on this subject are given in the following extract from its report :—

"212. Before leaving the general question of marketing, we would mention that, during the course of our tour, our attention was frequently called to the hampering effect on the cotton trade which results from the great variety in the weights used for transactions in cotton not only in different provinces but also in different districts and parts of districts in the same province. Over the greater part of the Bombay Presidency, cotton is bought and sold on the basis of a *khandi* of 784 pounds of lint, which is, in consequence, known as the Bombay *khandi*. In the south of the Presidency, the unit is the *nag* of 336 pounds. In Khandesh, the *khandi* varies from 160 to 250 pounds and the weight of the *maund* varies from 42 pounds at Bodwad to 144 pounds at Dhulia and Amalner. The Madras *khandi* is only 500 lbs. of lint, but in the 'Westerns' tract, cotton is sold by the *nag* of 312 pounds. At Cawnpore, there is a special cotton maund of 100 pounds for both lint and *kapas*. In other parts of the United Provinces, the standard maund of 82 2/7 pounds is generally used for *kapas*, lint being sold in bales of 400 lbs. In the Punjab and Sind, both *kapas* and lint are sold on the standard *maund* of 82 2/7 pounds. It is only in the Central Provinces and Berar that the weights used in the cotton markets have been prescribed or are regulated by Government. In both cases, the maund used is one of 28 pounds. Under the by-laws of the Nagpur market, the *khandi* is one of 784 pounds of *kapas* and a *bhoja* means 392 pounds of lint. The *khandi* and the *bhoja* are not defined in the rules of the Berar markets but are, in practice, the same as those in use at Nagpur.

Standardisation of weights.

The advantages to the trade which would result if some uniform system of weights could be adopted for all transactions in cotton are so obvious that they need not be enlarged upon. At the same time, a fruitful source of loss to the cultivator would be removed. There is no doubt that the present lack of system offers great opportunities for cheating him, of which many dealers and others are not slow to avail themselves and they are assisted in doing so by the fact that, even where the *maund* is in use, many of the weighbridges in ginneries are marked in hundred-weights, quarters and pounds instead of in *maunds*. We are, therefore, strongly of opinion that in the interests both of the trade and of the cultivator, the weights used in cotton transactions throughout India should be standardised. The Bombay *khandi* is such a well known weight and is already in use in so many of the principal cotton tracts in India that we consider it desirable that the standard weights should be sub-multiples of that. We do not, therefore, support the recommendation of the Weights and Measures Committee of 1913-14, that the standard *maund* of forty *seers* or 82 2/7 pounds should be adopted as this is only used, at present, for cotton transactions in the Punjab, Sind, and parts of the United Provinces, does not correspond to the avoirdupois scale and bears no relation to any of the *khandis* in use in cotton growing tracts. The *maund* we would recommend is one of 28 pounds. Fourteen *maunds* would then be equal to one *bhar*, *naga*, or *bhoja* of 392 pounds and two *bhars*, nagas or bhojas would be equal to one *khandi* of 784 pounds. The advantage of this scale is that it fits in with the scale which, as we have pointed out, is in use in the Bombay markets as well as in the principal cotton growing tracts. It also fits in with the weight of the *ordinary* bale which, everywhere in India, except in the south of Madras where it is 500 pounds, is 400 pounds gross. The allowance for tare is eight pounds which reduces the net weight of the bale to 392 pounds or exactly half a *khandi*. Its adoption would therefore cause the least dislocation and inconvenience to the trade. To avoid confusion, we would recommend that the *maund* we have suggested should be known as the 'cotton *maund*.' We consider it desirable that all the weights used in cotton transactions should be in pounds avoirdupois and, in our opinion, the introduction of the *seer* into the scale would only cause unnecessary complication.

"213. As regards the measures which should be taken to bring about a universal adoption of the scale suggested above, we have included in the scheme for the licensing of ginneries and presses put forward in paragrap ... that one of the condition ... to ginneries and presses ... standard weights prescribed for the tract shoul ... nend that, in the legislation, we have proposec ... otton markets in provinces other than the Central Provinces and Berar, power should be taken to ...

Measures necessary to bring about standardisation of weights

and without notice, to inspect, examine and test any scale or weights used, kept, or possessed in any open place within the limits of a market. If standard weights are prescribed for markets, ginneries and presses, there can be no question but that their adoption for all transactions in cotton will follow in a very short time The weights,

impressed with the disadvantages of the present system, both to the trade and the cultivator, that we consider that, if there are difficulties in prescribing uniform standard weights for the whole of India, an attempt should, at any rate, be made to secure uniformity within each province."

APPENDIX II

SUBJECT 15 —*Half yearly Report of the Publicity and Propaganda Officer*

The advent of its 28th meeting finds the Committee's activities far more widely known and the effect of its steadily growing propaganda far more definitely felt than was the

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very useful. Similarly the Secretary of the Indian Cotton Enquiry Committee (Manchester) wrote asking for additional copies of communiqués.

The following is the list of the Press Communiqués :—

(1) 27th Meeting of the Indian Central Cotton Committee—A summary of proceedings of the meeting.

(2) Hyderabad quest for better Gaorani—Various stages of experiments on this indigenous variety and studies to evolve a strain which will have its valuable spinning qualities and also possess other suitable economic characters of good yield and spinning outturn.

(3) Safety-first measures against importation of cotton pests—How and why American cotton and foreign cotton seed are fumigated.

(4) Testing of Indian cottons for quality at the Technological Laboratory—A press note on Bulletin No. 25, Series A, published by the Director of the Technological Laboratory at Matunga.

(5) The Institute of Plant Industry, Indore—A description of the work being done on production and improvement of raw cotton.

(6) The United Provinces Entomological Scheme—Heat treatment measures to control the Pink Boll-worm.

(7) Improvement of cotton in the Punjab—Botanical and Agricultural Research.

(8) Importance of Punjab Root Rot Scheme.

(9) Object of the Pink Boll-worm Scheme in the Punjab.

(10) Damage caused to the Punjab cotton crop by the White Fly.

(11) Defibrating and Delinting cotton in the Punjab.

(12) Bikaner Gang Canal Scheme.

(13) Harmful effects of Cholam in succeeding cotton crop.

(14) Cotton Leaf Hopper in the Punjab.

Press Communiqués were given prominence in most of the British cotton trade journals together with editorial introductory notes drawing the attention of the public to the importance of the subjects dealt with. In at least one case, they figured also on the poster of a journal—thus proving that the Press and the public alike were realising the national, imperial and international value of Indian cotton.

Pamphlets.

A draft account of the detailed study of the life history and habits of the spotted boll-worm in South Gujerat, estimate of damage caused by this pest and the various control measures tried was prepared, following the collaboration that took place between the Bombay Department of Agriculture and the Publicity Department of the Indian Central Cotton Committee in the clean-up campaign at Broach. At the instance of the Director of Agriculture, Bombay, the question of publication was deferred to April 1934, when more information will be available as to the effect of the big clean-up of 1933.

Brochure.

A profusely illustrated brochure entitled "The Indian Central Cotton Committee, its objects, activities and achievements, with special reference to the Punjab, Sind, the United Provinces and Central India" was published in December and freely distributed at the Indian Empire Exhibition, Lahore, in December-January to people who showed interest in the exhibits that were put up at our stalls. Up-to-date information about cotton legislation, for which the Committee was responsible, on the work of the Technological Laboratory and the Institute of Plant Industry aroused much interest. The chapters on the Committee's schemes in the Punjab, the United Provinces, Sind and Central India gave brief but sufficient knowledge of the Committee's activities in improving cotton in these tracts. The bulletin also included a Note on research students and the fumigation of cotton.

Leaflets.

The following leaflet was published in English and Marathi :—

"Some problems of cotton growing and its rotation crops in Central Provinces and Berar and the work hitherto done on them by the Botanical Section, Nagpur, and at the Akola Farm, under the auspices of the Indian Central Cotton Committee."

ton and seed

n the subject
Government

(3) The following leaflet was published in English:—

"Cotton Research in the Punjab " It reviewed the studies of various botanical and agricultural problems, the Root Rot Scheme and the Pink Boll-worm Scheme.

The following leaflet was published in Urdu, Marathi and Kanarese —

"The Hyderabad Botanical Scheme."

Summary Proceedings

In pursuance of the suggestion of Mr. B C Burt at the 27th meeting of the Committee in August 1933, that the Publicity Officer might prepare a summary of the discussions in a little less formal manner for the benefit of members of all Chambers of Commerce, Trade Associations, Co operative Societies and others, the Summary Proceedings have been published. It is hoped that this readable form of the Summary Proceedings will be of benefit to the people concerned.

Posters.

The Poster "India's Bid for Supremacy in the World's Cotton Markets" continued to be in good demand. At the request of the Indian Government Trade Commissioner, Hamburg, a large number of these posters was sent for display in Germany. Copies were also sent to various British Cotton Trade Organizations, which gave these posters nation-wide publicity

The Publicity and Propaganda Department has been devoting a good deal of attention to the preparation of two new posters in consultation with Provincial Departments of

for printing the same, which are now in hand, are complete

Indian Empire Exhibition, Lahore

The Publicity and Propaganda Department participated in the Indian Empire

Two stalls were hired by the Publicity and Propaganda Department of the Committee for the purpose of displaying improved types of Punjab and other cottons, yarns, etc.

The demonstrations mentioned under (*vi*) were a special feature of our stall and received the greatest interest and attention. These together with our neatly arranged exhibits drew multitude of people, growers, traders and manufacturers and were the subject of favourable comments.

A special brochure reviewing the achievements of the Committee's schemes in northern India was freely distributed to interested visitors.

In addition to trade and other enquiries emanating from firms and individuals wishing to establish contacts for the sale and purchase of cotton, we gave all assistance to growers and merchants with a view to stimulating demand for Indian cotton.

Other Exhibitions and Demonstrations.

Publicity material in English and Marathi was forwarded to the Deputy Director of Agriculture, Western Circle, Amraoti. The Deputy Director arranged practical demonstrations all over the Berar districts and many batches of cultivators and others interested in cotton witnessed these demonstrations. Very effective publicity was thus obtained.

Similarly a quantity of posters, bulletins, leaflets and folders in English, Hindi and Urdu was despatched to the Extension Officer of the Institute of Plant Industry, for distribution at the Agricultural Exhibition which he organized in Bharatpur State.

Quantities of publicity material were likewise sent to various Directors of Agriculture, the Chief Agricultural Officer in Sind and the Director of the Institute of Plant Industry for distribution. The Publicity Officer found it difficult to cope with the damand for posters and other material. It is hoped in due course, when fresh stock is printed, to comply with the demand.

Enquiries.

A large number of enquiries were made from the Publicity Department of the Committee from this country as well as from abroad, from Government institutions, trade associations and private concernes. The Indian Cotton Enquiry Committee (Manchester) sought our co-operation extensively for investigations into the technical and marketing problems involved in connection with the improvement and export of Indian cotton. In addition, the Department continued to supply information in response to several enquiries received from the British Cotton Growing Association, Baghdad (Iraq). In India, among other places, enquiries were received from Nawanagar State (general information and plant pullers), Ahmedabad (technological) Allanmyo, Burma (plant pullers), Bombay (heat treatment in control measures, for Pink Boll-Worm in United Provinces), Agra (technological), Japanese firms in Bombay (general information regarding Verum cotton etc.), Khar (marketing of cotton, diseases etc.), Ujjain (adulteration of cotton, control measures against Boll-Worm and plant pullers), Lahore (Institute of Plant Industry).

Tours.

At the invitation of the Chief Agricultural Officer in Sind, the Publicity Officer attended the meeting of the Provincial Board of Agriculture on 26th October 1933 which was presided over by the Commissioner in Sind. Among the subjects discussed were propaganda and publicity methods. By request the Publicity Officer gave his views on the methods by which the Department of Agriculture could exhibit and advertise the agricultural products of Sind—including cotton, at large railway stations which would help towards the general advancement of the interests of agriculturists and buyers in Sind. The Publicity Officer took the opportunity of this visit to Sind to exchange views with the Chief Agricultural Officer in Sind regarding the Indian Central Cotton Committee's Physiological and Seed Distribution Schemes in Sind.

The Publicity Officer attended also the 4th meeting of the Sind Cotton Committee held at Agricultural Research Station, Sakrand, on the 3rd December at the request of the Chief Agricultural Officer in Sind, and was able to offer useful opinions on the question of the utilization of zemindari lands for the extension of agricultural improvements as propaganda demonstrations to the cultivators.

The Publicity Officer also visited Lahore and Lyallpur to make necessary arrangements for giving publicity to the Committee's work in Northern India at the Indian Empire Exhibition and toured through the Faridkot, Nabha, Jind, Patiala and Bahawalpur States to impress upon the owners of cotton pressing factories the desirability of submitting weekly pressing returns showing the total number of bales of cotton pressed during the preceding week and from the commencement of the season to the end of the week, regularly and punctually.

APPENDIX III.

SUBJECT 17.—*Technological Research—Progress Report of the Director, Technological Laboratory*

SUMMARY OF PROGRESS REPORT (No 21) OF THE DIRECTOR, TECHNOLOGICAL LABORATORY.

INTRODUCTION

heads :—

I. Spinning Laboratory.
II. Research Laboratory.
III. Moisture Testing Section
IV. Publications
V. General

I SPINNING LABORATORY.

The following classified table gives, in a summary form, the distribution of samples received for tests during the period under review together with the figures for the corresponding period of last year —

TABLE I.

—	1st June 1933 to 31st October 1933.	1st June 1932 to 31st October 1932
Agricultural Departments ..	103	113
Standard cottons ..	1	1
Trade samples ..	29	23
Fibre test samples.	46	34
Yarn test samples	5	40
Special test samples	19	8
Total	203	219

that, as mentioned in my Progress Report No. 20, a very large number of agricultural samples had already been received during the first seven months of this year. Accordingly, if we take the total number of samples for the current year, it shows an increase of 22 per cent. over the last year. The decrease in the number of samples for yarn tests may be due to the imposition of fees decided upon by the Committee sometime ago though it does not seem to have affected the number of samples received either for fibre tests or spinning tests.

The number and distribution of samples, lots and counts spun during the period under review are given in the following table together with the figures for the corresponding period of last year :—

TABLE II.

—	Samples.		Lots.		Counts.	
	1st June 1933 to 31st October 1933.	1st June 1932 to 31st October 1932.	1st June 1933 to 31st October 1933.	1st June 1932 to 31st October 1932.	1st June 1933 to 31st October 1933.	1st June 1932 to 31st October 1932.
Bombay ..	76	59	76	59	223	172
Punjab ..	....	16	....	16	....	48
United Provinces ..	....	5	....	5	....	10
Madras ..	26	11	26	12	77	41
Central Provinces ..	....	....	....	....	....	....
Miscellaneous ..	37	32	37	32	111	95
Total ..	139	123	139	124	411	366
Standard ..	1	....	2	....	12	....
Trade Tests ..	21	31	21	35	48	97
Technological Tests.	24	53	24	54	64	82
Grand Total ..	185	207	186	213	535	545

It will be seen that the total number of samples and lots spun during the period under review show a small decrease over the figures for the corresponding period of last year while the total number of counts spun is practically the same. The results of tests carried out on the abovementioned samples were as usual embodied in spinning test, fibre test and yarn test reports, and table III shows the number of reports of each kind issued during the period under review together with the figures for the corresponding period of last year :—

TABLE III.

—	1st June 1933 to 31st October 1933.	1st June 1932 to 31st October 1932.
Spinning Test Reports	45	41
Fibre Test Reports	18	7
Yarn Test Reports	2	2
Total ..	65	50

It will be seen that more than twice as many fibre test reports were issued during the period under review as in the corresponding period of last year while the number of spinning test reports increased by 10 per cent. The total number of reports issued during

the period under review shows an increase of about 30 per cent. over the number for the corresponding period of last year.

Agricultural Samples—From among the samples received or tested during this period mention may be made of the following which are of special agricultural importance.—

(2) *Irrigation Experiments*.—As mentioned in my last Progress Report, samples of cottons have been received from Lyallpur, Sakrand, Bikaner and Coimbatore which

found possible so far to test the samples received from Bikaner, Sakrand and Coimbatore, but it is hoped that when these tests are completed, more valuable information will be obtained and if the experiments are continued for another few years a great deal of light will be thrown on the relationship between the yield, fibre properties and spinning performance of a cotton and the amount of irrigation given to the crop

a profitable basis, some imported types in these areas

Fibre Tests—The tests on samples of fair average quality of A. R. Kampala,

Secretary of the East India Cotton Association —

"The Committee placed on record their sense of appreciation of the very useful work done by the Technological Laboratory and especially the Director, Dr Ahmad, in connection with the experimental tests on Uganda cottons."

(*b*) *Indore Samples*—Samples of Cambodia and Malvi cottons sown before monsoon on irrigation and irrigated after rains showed an improvement in fibre-length of 5–10 per cent. as compared with those grown under *barani* conditions in the case of Cambodia cottons while no such improvement was observed in the case of Malvi cotton. Tests on samples of 289F grown at Indore showed that the low fibre-weights which were observed for these cottons were mainly due to the presence of a large percentage of immature fibres and that heavy irrigation in addition to improving the staple length helped to reduce immaturity.

(c) *Parbhani cottons.*—As in the past, fibre tests have been continued on several strains received from Parbhani with a view to helping the Cotton Research Botanist, Parbhani, in selecting the promising strains for further field trials.

Testing of samples for private mills.—It will be recalled that at its meeting held on 1st August 1932, the Indian Central Cotton Committee laid down certain fees for testing samples received from mills and individuals in their private capacity. The scale of fees was later modified in a meeting of the Standing Finance Sub-Committee held on 13th March 1933. Since 1st January 1933, when these charges came into force 40 samples have been tested under this head. Of these six samples were subjected to spinning tests, 25 of fibre tests and the remaining nine to yarn tests. The total income derived from these tests is Rs. 567-8-0.

Trade Samples.—These samples are being tested at the Technological Laboratory in accordance with the arrangement entered into between the Indian Central Cotton Committee on the one hand, the East India Cotton Association, Bombay, the Millowners' Association, Bombay and the Ahmedabad Millowners' Association on the other. During the period under review 22 samples were received for tests and the results of spinning tests on these samples were embodied in ten Technological Circulars which also contained the results of tests carried out on the same growths during the previous seasons.

In addition to these, tests on samples of special interest to the trade and industry have been made during the period under review. Among these, mention may be made of the following :—

(1) *Tests on Damped and Dry Cottons.*—Bales of Amraoti cotton pressed with different amounts of humidification have been kindly placed at the disposal of the Laboratory by Messrs. Volkart Brothers, Bombay, to whom my best thanks are due. Samples drawn from these bales at intervals of about 5 months are subjected to the usual spinning tests. Only two series of tests have been made so far and it is proposed to continue these tests during the next year.

(2) *Deterioration of cotton stored in open plinths at Karachi.*—This investigation has been undertaken at the request of the Karachi Cotton Association with a view to finding out the extent to which cotton bales stacked in open plinths deteriorate in comparison with those stored inside a shed. Tests have already been made on two series of samples drawn from these bales and will be continued during the next year when their results will be summarised in the Progress Report.

(3) *Identification of cottons.*—Small samples of cotton were supplied by the Collector of Salt Revenue, Bombay. These were drawn from bales landed at a Kathiawar port and the Collector of Salt Revenue was anxious to find out whether any American cotton was being imported, under a false description, through this port with a view to avoiding fumigation charges. Detailed fibre tests were made on these samples and a report embodying the results of these tests was sent to the officer concerned.

(4) *Tests on samples drawn from Calender Bowl.*—These samples were submitted by a local mill which experienced some difficulty with one of their Calendering Machines. The object of the test was to find out whether the cotton used in the Bowls was of the same type as the sample supplied by the manufacturers of the machine or a different type had been substituted for it. Comparative tests were made on these samples and a report embodying the results was sent to the mill concerned.

Technological samples.—Owing to the fact that practically the whole of the period under review was taken up with the testing of agricultural samples, much headway could not be made in the investigation of technological problems. The period was, however, utilised in writing up the accounts of investigations which had been completed. Among these mention may be made of a Bulletin on the effect of manurial treatment on Cambodia Co. 1 cotton. The question of using artificial manures, especially where the soil fertility is low, is of very great importance to the cotton grower and the object of this investigation was to find out the type of manure and the amount of dressing which would give the best results as regards yield and spinning performance with Cambodia cotton. In another bulletin the results of experiments performed with a view to finding out the relationship between the feel and the wax content of a cotton have been discussed and the Bulletin has been sent out for publication. The wax content of a cotton, though small as compared with the other constituents of the fibre, plays an important part in the spinning, bleaching, dyeing and scouring processes. It is usually estimated by the Grader by feeling the cotton and the object of this investigation was to ascertain whether any relationship exists between the feel as estimated by the Grader and the wax content as found by chemical methods.

who specially ask for maturity tests to be performed on the samples submitted by them. These maturity tests have in all cases been carried out by *Mr. Gulati*. In addition to this, Mr. Gulati has been engaged in writing up an account of his experiments on the relationship between the neppiness of the yarn spun from a cotton and the maturity of its hair and the relationship between strength and maturity of cotton hair. A bulletin embodying the results of this investigation is in the course of preparation. In addition to this, Mr. Gulati is engaged on making measurement on the growth and sub-division of epidermic cells on young ovules. This work is in progress.

III. Moisture Testing Section.

It was stated in my last Progress Report that the first stage of the work of the Moisture Testing Section was brought to a close by the completion of tests on specially pressed bales and bales which are ordinarily received for trade purposes in Bombay. The available results were placed before a Sub-Committee on 20th November 1933. After a thorough discussion it was decided that, as in the case of several descriptions of cotton sufficient data was not available, these tests should be continued for sometime more.

IV. Publications.

The following is the list of the Technological Bulletins and Circulars issued during the period under review :—

Bulletins.

(1) Technological Bulletin, Series A, No. 23 "*Variation in the Moisture Content of Baled Indian Cotton with Atmospheric Humidity*" by Nazir Ahmad, M.Sc., Ph.D.

(2) Technological Bulletin, Series A, No. 24, "*Technological Reports on Standard Indian Cottons, 1933*" by Nazir Ahmad, M.Sc., Ph.D.

(3) Technological Bulletin, Series A, No. 25, "Testing of Indian Cottons for Quality at the Laboratory" by Nazir Ahmad, M.Sc., Ph.D.

(4) Technological Bulletin, Series B, No. 17, "The Foundations of Yarn-Strength and Yarn-Extensions: Part V. The Prediction of the Spinning Value of a Cotton from its Fibre-Properties" by A. J. Turner, M.A., D.Sc., and V. Venkataraman, M.A.

Circulars. Nos. 100 to 109.

V. General.

Visit of His Excellency the Viceroy.—His Excellency the Viceroy honoured the Laboratory by a visit on the 14th August 1933. His Excellency was received at the entrance by Mr. S. D. Saklatvala, Mr. P. H. Rama Reddi and the writer. Invitations had previously been issued to the members of the Standing Finance Sub-Committee and Technological Research Sub-Committee and Mr. S. D. Saklatvala introduced the members present on the occasion to His Excellency. As the party inspected the different sections of the Laboratory, His Excellency put numerous questions regarding the various researches in progress at the Laboratory such as the analysis of cotton by ultra-violet light, the determination of fibre maturity, the wax content, etc. He evinced keen interest in the new method evolved at the Laboratory for the determination of staple length and fibre-weight of cotton. The party then proceeded to the Spinning and the Yarn Testing Sections where the various processes in the manufacture of carded and combed yarn from Indian cottons and the determination of their various characteristics were demonstrated to His Excellency who showed himself fully alive to the welfare of the cotton trade and industry by making enquiries about the improved types developed as a result of the efforts of the Indian Central Cotton Committee, especially those under trial in Sind. His Excellency was pleased to express his appreciation of the work done at the Laboratory and as a memento of his visit presented signed photographs of himself and Lady Willingdon to the Laboratory.

Purchase of two plots for extension of the Laboratory.—In view of the manner in which the work of the Laboratory has increased during the last few years, several rooms of the Laboratory have become severely over-crowded and the need for extension has been felt in more than one direction. In addition to this, it has been felt that if the Laboratory is to continue to serve the trade and industry in the manner in which it has done in the past, it is necessary that arrangements should be made for testing other qualities of cotton besides spinning, such as dyeing, bleaching, sizing, etc. It was also felt that an impetus to the use of Indian cottons would be given if arrangements could be made at

and arrangements are afoot to acquire these two plots.

Equipment.—The equipment of the Laboratory has been strengthened by the purchase of the following machinery and apparatus :—

Machinery.—A Jack Roving Frame with 56 spindles manufactured by Messrs. Tweedales and Smalley. The amount for the purchase of this Roving Frame was sanctioned by the Committee at its meeting held on 3rd February 1933. The Frame has been received and erected and a 4 H. P. motor to run the frame as well as the gins recently installed at the Laboratory has also been erected.

Apparatus.—Heraus Mercury Quartz Lamp for ultra-violet radiation.

ACKNOWLEDGMENTS.

My thanks are due to the members of the research, testing and office staff of the Laboratory whose valuable assistance and loyal co-operation made it possible for me to complete the work described in this Report.

(Signed) NAZIR AHMAD,
Director,
Technological Laboratory.

Dated the 28th December 1933.

APPENDIX IV.

SUBJECT 28.—*Report of the Agricultural Research Sub-Committee*

A. REPORT OF THE AGRICULTURAL RESEARCH SUB COMMITTEE ON NEW AGRICULTURAL RESEARCH SCHEMES.

(1) *Central Provinces and Berar Entomological Scheme (No 19)*.—The Sub-Committee recommends the sanction of this scheme for a period of two years with a view to ascertaining if the results obtained from the Surat Entomological Research Scheme are applicable to Central Provinces conditions.

As to the assistant to be employed on this scheme, the Sub Committee is of opinion that an attempt should be made to secure the services of one of the ex-employees of the Surat scheme on a suitable pay. The estimated cost of the scheme would be modified to this extent.

(2) *Scheme for survey of the disease of malformation in Punjab-American Cottons (No. 20)*.—The Sub Committee recommends that the scheme might be adopted at the estimated cost of Rs 2,674. It was also decided that the Secretary should write to all Directors of Agriculture for any information, available with them, upon this or similar malformation disease in cotton

[illegible]

modification.

(4) *Scheme for Boll worm Clean-up demonstration in Baroda (No 22)*.—The Sub-Committee recommends that the scheme may be referred back to the Director of Agriculture, Baroda, for discussing it with the Director of Agriculture, Bombay Presidency, in the light of the experience gained from the clean up scheme in Gujerat, and re-submitting it for consideration at the next meeting of the Sub Committee.

B. Report of the Agricultural Research Sub-Committee on New Seed Distribution and Extension Schemes.

(1) *Scheme for the propagation of C-402 in the Hardoi and neighbouring districts of Lucknow and Sitapur (No. 24).*

The Sub-Committee recommends that this scheme be sanctioned for five years. The Sub-Committee however suggests that item 5 (*c*), in the estimate of the scheme, shown at page 4 of the note, be raised to Rs. 1,200. If this suggestion is accepted, the total cost of the scheme would go up to Rs. 45,800 against Rs. 43,800 asked for.

The Sub-Committee is not in favour of granting any financial backing to the Cotton Production and Sale Society, Belgram, as proposed in part II of the scheme received from the Director of Agriculture.

(2) *Wagad Seed Distribution and Extension Scheme (No. 25).*

In view of the partial failure this season of the crop raised from selfed seed, the Sub-Committee recommends that the scheme be sanctioned for six years from the 1st April 1934 instead of five years. The additional cost on this account, viz., Rs. 5,360, will raise the total cost of the scheme to Rs. 1,23,315.

(3) *Scheme for the multiplication and supply of pure Banilla cotton seed on the Deccan Canals (No. 26).*

This scheme is practically self-supporting, but the Committee has to meet, in the first instance, the operational expenses which will later on be recouped by the sale of cotton and ground nut. The Sub-Committee recommends that this scheme be sanctioned for a period of five years commencing from March 1934 at a total estimated expenditure of Rs. 23,800.

(4) *Surat Cotton Seed Distribution and Extension Scheme (No. 27).*

The Sub-Committee recommends the adoption of this scheme subject to the condition that the full Committee's decision on the question of the cotton policy in Gujerat is in favour of 1A L. B.

(5) *Scheme for the extension of long-staple cotton in the Central Provinces and Berar (No. 35).*

The Sub-Committee recommends that sanction may be accorded to this scheme. The total cost is Rs. 86,298 spread over a period of three years.

C. Report of the Agricultural Research Sub-Committee on Extensions of Old Schemes.

(1) *Punjab White Fly Scheme.*

The Sub-Committee considered the proposals for an extension of this scheme by three years submitted by the Director of Agriculture, Punjab, and approved, with modifications, the programme of work proposed by the Director of Agriculture. In view of the restricted programme, the Sub-Committee recommends the extension of the scheme for two years only, at an estimated cost of Rs. 10,709 in 1934-35, and Rs. 10,878 in 1935-36, the difference between the Sub-Committee's recommendations and the Director's proposals being the omission of the provision for the Field Assistant on Rs. 200—10—220.

(2) *Punjab Spraying Trials Scheme.*

The Sub-Committee recommends the extension of this scheme by one year at an estimated additional cost of Rs. 1,250. The area proposed to be treated should be, as now, 3,000 acres, but located in four different centres. The crop should be sprayed at different times. Also small scale experiments should be undertaken with different insecticides.

(3) *Seed Distribution and Extension Scheme, Tiruppur—Pay of Business Manager—Proposed extension of appointment of and provision of staff for.*

The Sub-Committee considered the proposals of the Director of Agriculture, Madras, for extending, till the end of the Co. 2 Scheme, viz., September 1937, the appointment of the Business Manager which would ordinarily expire in May 1936 and for providing him with clerical assistance, office accommodation, etc. The Sub-Committee thinks it unnecessary to examine at this stage the question of the extension of the Business Manager's appointment and recommends that he may be provided with clerical …

D REPORT OF THE AGRICULTURAL RESEARCH SUB COMMITTEE ON RESEARCH STUDENTS.

(1) Progress Report of Mr. Sant Singh Verma.

(2) Programme of work of Mr. S. N. Venkataramana Ayyar.

Final Reports of Research Students

The Sub-Committee considered and approved the final reports submitted by the following research students :—

(1) Bhai Santok Singh Jaggi (Punjab—Cotton Marketing and Economics) on :—

(a) Effect of mixing *Desi* and American cottons on the premium paid for American over *Desi* cotton in the Lyallpur market
and
Relation between the prices of Broach cotton in the Bombay market and the prices of American cotton in the Lyallpur market

(b) Causes of fluctuation of area under cotton in the Canal Colonies of the Punjab.

(c) Effect of ginning and pressing factories pools on the local prices of *kapas*

(d) Study of agricultural conditions under which *Desi* and American cottons are grown in the Lyallpur District

(2) Mr S. V. Doraiswamy Ayyar (Madras—Cotton Marketing and Economics) on :—

The Finance and Sowings of cotton in the Tiruppur tract, Season 1932, and

The Finance and Marketing of cotton in the Tiruppur tract, Season 1933

(3) Mr. K. R. Dube (Central Provinces—Cotton Marketing and Economics) on :—

The cost of cultivation of cotton and its rotation crops.

Foreign Scholarship.

The Sub Committee recommends the application of Mr Shama Iyengar for a training grant. The papers are attached*. A grant of Rs 6,000 is required.

Future employment of Messrs. B N Bhargava and Madanlal Bhatia.

Award of Research Studentships in 1934.

The Sub-Committee recommends that a research studentship should be granted in Genetics during this year As usual applications should be invited by advertisement from candidates who have either undergone a post graduate course in Genetics or had practical experience of genetical work for at least two years

E. GENERAL.

(1) *Final Report on the Dharwar Cotton Wilt Research Scheme* —In accordance with the recommendations made by the Sub-Committee at its last meeting, Mr. G S. Kulkarni, the author of the report, re-examined the passages in the report relating to (1) the

* Not printed.

importance, urgency, and the relative costs of the schemes, the Sub Committee decided to classify the schemes under three heads :—

I *Special Schemes*, comprising continuation schemes of existing research and seed extension schemes,

II. *New Research Schemes* consisting of the new agricultural research schemes, and

III. *New Seed Schemes* comprising the new seed distribution and extension schemes sanctioned by the Sub-Committee

The schemes included in Class I should take precedence of all others, schemes in Class II and Class III following them. It was further decided to arrange the schemes as below to show the order in which those included in each class should be given priority over others in the same class

Director of Agriculture, Bombay Presidency, is for the distribution of 1A L.B. seed, in anticipation of the decision of the Committee in favour of this type of cotton for the Surat tract Since the Committee has voted in favour of 1027 A L F the scheme becomes an extension of the present 1027 A L F seed distribution scheme This scheme is therefore extended for a period of five years from April 1934 at an estimated cost of Rs 66,390.

CLASS II—NEW RESEARCH SCHEMES.

(1) *Scheme for survey of the disease of malformation in Punjab-American cottons.*—Sanctioned for one year from April 1934 at an estimated cost of Rs. 2,674.

(2) *Central Provinces and Berar Entomological Scheme* —Sanctioned for two years at an average cost of Rs 2,391 per annum The cost will however vary according to the pay to be offered to the ex-employee of the Surat Entomological Scheme, who, as recommended by the Sub-Committee, has to be recruited as the assistant

CLASS III—NEW SEED SCHEMES.

(1) *Deccan Banilla Scheme.*—Though practically self-supporting, the Committee has to meet, in the first instance, the operational expenses. Scheme sanctioned for five years from March 1934 at a total estimated cost of Rs 23,600

(2) *Central Provinces and Berar Seed Distribution Scheme.*—Sanctioned for a period of three years at an estimated cost of Rs 86,298

(3) *United Provinces C402 Seed Distribution Scheme.*—Sanctioned for five years at an estimated cost of Rs. 45,600.

(4) *Bombay Wagad Seed Distribution Scheme* —Sanctioned for six years from April 1934 at an estimated cost of Rs 1,23,215

APPENDIX V.

SUBJECT 20.—*Report of the Standing Finance Sub-Committee* :—

(a) *Balance Sheet.*
(b) *Financial Statement*
(c) *Revised Estimates for 1933-34.*
(d) *Budget, 1934-35.*
(e) *Auditors' fees.*

Three meetings of the Sub-Committee were held since the last meeting of the C Cotton Committee.

2. The Sub-Committee reported to the last meeting of the Indian C Committee that it had decided to adhere to its previous decision recomm

appointment of Mr. Mohammad Afzal to the post of Cotton Research Botanist in the Punjab. A letter has since been addressed to the Government of India embodying the views of the Sub-Committee in favour of Mr. Afzal's appointment and the matter is still under the consideration of the Government of India.

3. The Indian Central Cotton Committee at its last meeting held in August 1933 considered the following resolution passed by the Board of Governors, Institute of Plant Industry, at their meeting held on the 28th February 1933:—

"That, in the absence of suitable accommodation for the Director of the Institute, and to ensure that such will always be available, the Board requests the Indian Central Cotton Committee to make a special grant to the Institute of Plant Industry of a sum not exceeding Rs. 45,000 to enable a Director's house to be built upon the Institute's leased area, subject to satisfactory arrangement with the Holkar Darbar in regard to compensation to the Indian Central Cotton Committee for the capital value of the buildings, in the event of the Society's dissolution or of the Darbar entering into occupation of the land before the expiry of the 99-year period of the lease."

The Committee after discussing the resolution at some length decided to refer to the Standing Finance Sub-Committee the question of quarters for the Director, Institute of Plant Industry. The Sub-Committee considered the question at two of its meetings and finally decided that at the next meeting of the Board of Governors the views of the States' representatives should be ascertained with regard to the amount they were prepared to contribute for construction of the Director's quarters and their views together with the Board's decision on the matter should be reported to the full Committee. The report on the proceedings of the last meeting of the Board held on the 20th December 1933 will be found in subject No. 11 on the agenda of the full Committee.

4. The Sub-Committee considered proposals from the Director, Technological Laboratory, for the purchase of two adjacent vacant plots on the northern side of the Technological Laboratory which were considered suitable for future extension of the Laboratory and available at Rs. 8-8-0 per square yard. The Sub-Committee decided that the two plots should be acquired at a cost of about Rs. 25,000 and that by paying an additional amount of Rs. 50 a combined freehold sale-deed should be obtained for the six plots including the four plots at present occupied by the Laboratory.

5. At its meeting held in January 1933, the Joint Sub-Committee of the Imperial Council of Agricultural Research and the Indian Central Cotton Committee agreed to Bengal being brought in the scope of the scheme for the investigation into the cost of production of sugarcane, cotton and their rotation crops by the inclusion of two tracts under one District Supervisor. The proposal was accepted by the Committee in February 1933 which agreed to bear half the cost of the entire scheme. The Government of Bengal, however, found it difficult to run two districts with one Supervisor and applied for an additional annual grant of Rs. 720 for the travelling allowance of a Supervisor whose pay would be met by the Viswa Bharti Institute. The Sub-Committee considered the request and agreed to sanction an additional grant of Rs. 720 per annum for Bengal provided this additional expenditure could be met from savings of the grant already sanctioned.

6. The full Committee at its last meeting held in August 1933 sanctioned Mr. H. D. Nangpal eight months' [illegible] average pay and four months on half average pay, to enable him to visit [illegible] and to undergo training in England. The Government Entomologist, United Provinces, however, considered that it was necessary that Mr. Nangpal should visit Sudan also and that eight months' leave was inadequate as Mr. Nangpal was required to spend a part of this leave in India. The Sub-Committee after full consideration of the proposals of the Government Entomologist decided to extend Mr. Nangpal's leave by 42 days on half average pay, sanctioned a sum of Rs. 1,791-8-0 for cost of passages and overland journeys with permission to visit Sudan and approved of his tour programme. The Sub-Committee also sanctioned a fee of £25 for the training of Mr. Nangpal at the Imperial Institute of Entomology, London.

7. The Indian Central Cotton Committee at its last meeting accepted the recommendations of the Cotton Forecasts Improvement Sub-Committee and sanctioned Rs. 22,500 for studies of village consumption of cotton. The Sub-Committee considered it desirable to keep separate the expenditure on these and other measures arising out of the activities of the Forecasts Improvement Sub-Committee and decided to include a new Head "1-E—Statistical Research" in the Committee's Budget Heads.

8. The Sub-Committee considered it desirable to call for quotations from more than one broker whenever the Committee wanted to make investments or sell its securities and appointed Messrs. Merwanji & Sons, Messrs. Premchand Roychand & Sons and Messrs. Batliwala and Karani as the Committee's brokers.

In accordance with these recommendations, the Sub-Committee considered the revised budget estimates forwarded by the Director of Agriculture, Baroda State, and sanctioned a total sum of Rs. 36,459 for a period of three years against an original estimate of Rs. 40,522-8-0 which included provision for the Breeding Assistant for Jagudan.

15. The extension of the Hyderabad Botanical Research Scheme for a period of five years from the 1st April 1934 was sanctioned by the Indian Central Cotton Committee at its last meeting, subject to the conditions :—

(1) that only two of the proposed four variety testing stations are required;

(2) that the pay of the Cotton Research Botanist be fixed on the scale of Rs. 1,000—50/2—1,250 and

(3) that the revision of the pay of the 1st and 2nd Assistant Cotton Research Botanists be taken up when they reached the maxima of their present scales.

In pursuance of these modifications revised estimates received from H. E. H. the Nizam's Government at a total estimated cost of Rs. 2,42,592 against the original estimate of Rs. 2,82,259 spread over a period of five years were considered and approved by the Sub-Committee.

16. A Balance Sheet of the audited accounts of the Committee's funds and the Provident Fund as on the 30th September 1933 and also the Financial Statement* as on 31st December 1933 are submitted for information. Rs. 21,10,274-4-7 of the Committee's securities are invested in Government Paper and Rs. 6,13,040-10-0 in long-dated Corporation Bonds. As will be seen from the Financial Statement the market value of the Committee's securities has appreciated by Rs. 3,46,545-8-5 but to finance all the schemes which are to be put in operation it will be necessary in the near future to sell some of them.

17. Revised Estimates of Receipts and Expenditure for the current financial year are submitted for approval. Cotton cess receipts up to the end of December 1933 amounted to Rs. 4,60,731-8-7 as against Rs. 3,21,370-7-2 for the corresponding period of last year. No change is therefore required to be made in the original estimate of Rs. 5,00,000. Owing to the conversion of the Committee's securities in 5 per cent. 1935 Taxable Bonds (withdrawn by the Government) into 3½ per cent. Government of India Loan 1917/50 of the like face value, the Committee's annual income has been reduced by Rs. 6,646 this year as the half yearly interest on the converted loan for the 2nd half of the year will only be due in the next financial year.

The total expenditure for the year is now estimated at Rs. 10,35,497-5-0 against Rs. 12,27,405-5-0 in August last; the decrease of Rs. 1,91,908 being chiefly due to savings as detailed in the Revised Estimates. The closing balance (excluding recoverable loans amounting to Rs. 15,355-9-3) at the end of the current year will remain at Rs. 25,55,201-14-6 as compared with Rs. 29,54,499-3-6 at the end of last year.

18. The draft Budget for 1934-35 is also submitted for approval, the estimates of receipts from cotton cess have been retained at the same figure as in the revised estimates for the current financial year (viz., Rs. 5,00,000) and the figure under interest has been reduced from Rs. 1,33,700 to Rs. 1,18,500 in view of the necessity which is likely to arise for the sale of some of the securities.

19. The Revised Estimates for 1933-34 of the Publicity and Propaganda Department have been shown as Rs. 25,687 against Rs. 29,209 sanctioned. The decrease is due to savings under various sub-heads.

20. The draft Budget for 1934-35 of the Publicity and Propaganda Section is also attached, and is for approval. The expenditure is estimated at Rs. 30,074 as against Rs. 25,687 in the Revised Estimates for 1933-34.

BALANCE SHEET AS AT SEPTEMBER 30TH, 1933

Balance Sheet as at 30th September 1933.

Provident Fund Account.

RECEIPTS.

	Rs.	a.	p.	Rs.	a.	p.
Subscribers' contributions account..	1,27,744	11	9			
Less—Payments made to subscribers resigned	31,970	3	6			
				95,774	8	3
Committee's contributions ..	1,16,097	13	0			
Less—Payments made to subscribers resigned and forfeitures to the Committee	29,975	15	3			
				86,121	13	9
Interest received on investments ..	2,746	8	0			
Interest received on advances ..	48	3	0			
	2,794	11	0			
Less—(1) Income tax deducted from interest	96	3	0			
(2) Bank's commission for collection of interest	6	14	0			
	103	1	0	2,691	10	0
Lapse and Forfeiture account ..	....			66	6	2
Suspense Deposit of Mr. Dutt's own contributions with interest ..	....			968	1	10
Grand Total ..				1,85,622	8	0

EXPENDITURE.

	Rs.	a.	p.	Rs.	a.	p.
By cost of stamps and professional charges for amendment of Provident Fund Rules ..	....			30	2	0
Interest accrued on Government paper up to 31st March 1933 credited to subscribers ..	....			1,738	2	0
By advances to subscribers ..	23,549	2	0			
Less—Recoveries made up to 30th September 1933 ..	21,785	3	0			
				1,763	15	0
By balance ..	....			1,82,090	5	0

REVISED ESTIMATES, 1933-34.

Revised Estimates, 1933–34.

Provident Fund Account.

RECEIPTS.

	Rs.	a.	p.	Rs.	a.	p.
To Opening Balance on 1st April 1933 .				1,70,531	0	11
To subscriber's contributions ..	18,000	0	0			
To Committee's contributions ..	18,000	0	0			
	36,000	0	0			
Less—						
Payments to subscribers resigned during the year :—						
1. Their own contributions ..	3,157	2	7			
2. Committee's contributions due ..	3,028	4	8			
	6,185	7	3	29,814	8	9
To recoveries against advances ..				3,077	12	0
To interest (net) receivable ..				7,805	0	0
To Lapse and Forfeitures account ..				246	1	1
Total ..				2,11,474	6	9

EXPENDITURE.

	Rs.	a.	p.
By expenditure for stationery, printing and professional charges for amendment of Rules ..	58	8	0
By Balance ..	2,11,415	14	9
Total ..	2,11,474	6	9

BUDGET—1934-35—ALL HEADS

Budget—1934-35—All Heads.

(As passed by the Indian Central Cotton Committee at its meeting held on the 30th January 1934.)

RECEIPTS.

	Rs. a. p.	Rs. a. p.
To opening Balance on 1st April 1934 ..	25,55,201 14 6	
Loans Recoverable Account ..	15,355 9 3	
		25,70,557 7 9
Cotton Cess Receipts ..		5,00,000 0 0
Interest Account ..		1,18,500 0 0
Miscellaneous receipts		2,500 0 0

EXPENDITURE.

	Rs. a. p.	Rs. a. p.
I. A. *Administration* ..		
B. *Improvement of Cotton Marketing*— ..		1,51,020 0 0
(i) Cost of Exhibits, Moisture tests, etc.	5,000 0 0	
(ii) Cost of growing cotton in India ..	73,143 0 0	
		78,143 0 0
C. *Seed Distribution and Extension Schemes*—		
(1) *Bombay Presidency*—		
(i) Hubli	8,679 0 0	
(ii) Gadag	8,737 0 0	
(iii) Gadag Supplementary ..	5,159 0 0	
(iv) Haveri	2,800 0 0	
(v) Athani	12,465 0 0	
(vi) Bailhongal	4,285 0 0	
(vii) Surat	10,355 0 0	
(viii) Khandesh	46,535 0 0	
(ix) Deccan Canals (Banilla) ..	4,645 0 0	
(2) *Madras Presidency*—		
(i) Pay and allowance of Business Manager, Tiruppur	5,305 0 0	
(ii) Co. 2	18,580 0 0	
(iii) H-1	14,380 0 0	
(3) *Sind*	51,924 0 0	
(4) Hyderabad State .. {	5,128 0 0	
	2,016 0 0	
(5) *Central Provinces*—		
(i) Verum cotton ..	8,997 4 0	
(ii) Long staple cotton ..	27,182 0 0	
(6) Baroda	5,120 0 0	

Budget—1934-35—*All Heads*—contd.

	Rs.	a.	p.
Brought forward ..	31,91,557	7	9
Grand Total ..	31,91,557	7	9

EXPENDITURE.

		Rs.	a.	p.	Rs.	a.	p.
	Brought forward ..	2,05,875	0	0	8,60,546	4	0
VII.	*Central Provinces*—						
	(*a*) Botanical	37,742	0	0			
	(*b*) Entomological	3,380	0	0			
VIII.	*United Provinces*—						
	(*a*) Recurring grant for staff ..	758	0	0			
	(*b*) Rohilkhand and Bundelkhand Cotton Survey	5,300	0	0			
IX.	*Institute of Plant Industry, Indore* ..	1,15,000	0	0			
X.	*Sind*	33,438	0	0			
XI.	*Burma Cotton Improvement* ..	10,260	0	0			
XII.	*Hyderabad*—						
	(*a*) Botanical	56,710	0	0			
	(*b*) Cotton Survey	9,211	0	0			
	(*c*) Pink and Spotted Boll-worm ..	8,297	0	0			
XIII.	*Bikaner*	7,640	0	0			
XIV.	*Baroda*—Root Rot	11,718	0	0			
XV.	*Bengal Comilla Cotton*	3,085	0	0	5,08,414	0	0
	Total Expenditure ..	....			13,68,960	4	0
XVI.	*Loans recoverable* (but considered doubtful)—						
	(1) Hubli	8,063	9	3			
	(2) Gadag	7,292	0	0	15,355	9	3
	By Balance ..	....			18,07,241	10	6
	Grand Total ..				31,91,557	7	9

Budget 1934–35.

Provident Fund Account.

RECEIPTS.	Rs.	Rs. a. p.	EXPENDITURE.	Rs. a. p.
To Opening Balance on 1st April 1934 ..		2,11,415 14 0	*By Balance*	2,61,246 2 0
Subscribers' contributions	20,000			
Committee's contributions	20,000	40,000 0 0		
Recoveries against advances ..	..	930 4 0		
Interest receivable	..	8,900 0 0		
Total		2,61,246 2 0	Total ..	2,61,246 2 0

REVISED ESTIMATES 1933–34—PUBLICITY AND PROPAGANDA.

Statement showing the sanctioned budget, revised estimated expenditure with savings and deficits for the year ending 31st March 1934.

Sub-heads.	Original sanctioned Budget, 1933–34	Expenditure for 1933–34.			Savings + Deficits –	Remarks.
		Expenditure up to 31st December 1933.	Estimated from 1st January 1934 to 31st March 1934.	Total for 1933-34.		
	Rs.	Rs.	Rs.	Rs.	Rs.	
(a) Salary of Officer	11,742	8,966	2,700	12,779	–1,037	Deficit as no provision was made for House Rent Allowance sanctioned by the Committee; subsequently only in June 1933 with retrospective effect from 15th October 1932.
(b) House Rent Allowance	....	....	225			
(c) Provident Fund	....	....	888			
Establishment	2,729	1,668	568	2,425	+ 304	Excess due to 5 per cent. cut and leave salary not utilised.
(a) Provident Fund	....	....	189			
Menials	338	225	75	325	+ 13	Excess due to leave salary not utilised.
(a) Provident Fund	....	....	25			
Travelling Allowance	3,500	2,612	888	3,500	....	
Allowance to Translators	2,000	50	50	100	+1,900	
Printing	6,000	869	3,500	4,369	+1,631	
Contingencies—						
A. Postage and Telegrams	500	237	263	500	....	
B. Furniture	400	88	200	288	+ 112	
C. Stationery	300	92	100	192	+ 108	
D. Exhibits and cost of transport, accommodation, etc. ..	1,000	201	500	701	+ 299	
E. Miscellaneous	700	308	200	508	+ 192	
Total ..	29,209	15,316	10,371	25,687	+3,522	

Budget 1934-35—Publicity and Propaganda.

Sub-heads.	Budget for 1933-34. Original.	Budget for 1933-34. Revised.	Budget for 1934-35.	Remarks.
	Rs.	Rs.	Rs.	
1 Salary of Officer ..	11,742	12,779	12,600	
2. Establishment ..	2,729	2,425	2,740	
3 Menials .. .	338	323	334	
4. Travelling Allowance	3,500	3,500	5,000*	*Excess due to additional touring to be done in Indian States.
5 Allowance to Translators	2,000	100	1,000	
6 Printing ..	6,000	4,369	6,000	
7. Contingencies—				
A Postage and Telegrams.	500	500	500	
B Furniture	400	288	100	
C. Stationery .	300	192	200	
D Exhibits and cost of transport, accommodation, etc	1,000	701	1,000	
E. Miscellaneous ..	700	508	600	
Total ..	29,209	25,687	30,074	

A case of rejection, due to faulty marking, of a tender of bales pressed in the Manavadar State was brought to the notice of the Sub-Committee. This case showed that Indian States had not followed the lead given by the Government of India in 1929 in amending Rule 7 of the Indian Cotton Ginning and Pressing Factories Rules so as to make the manner of marking bales less meticulous than what it was before. The Sub-Committee therefore decided that the attention of the States' authorities should be drawn to this.

The Sub-Committee considered a letter received from the Great Indian Peninsula Railway asking for suggestions on the proposed reduction of freight rates on cotton booked from South India to Bombay and other mill centres in India. The Sub-Committee decided that the various Chambers of Commerce and Trade Associations concerned should be consulted to enable the Committee to examine the subject in all its bearings.

A letter sent by the Buyers' and Shippers' Chamber of Karachi asking for representation on the Committee was considered by the Sub-Committee. The Sub-Committee was still of opinion that additional commercial representatives from Karachi on the Committee would upset the balance of representation on the Committee.

On a reference made by the East India Cotton Association regarding the heavy incidence of road tolls on carts and lorries carrying cotton, the Sub-Committee agreed with the views of the East India Cotton Association that this was a matter on which a joint representation should be made to the Government of Bombay.

The Indian Central Cotton Committee at its last meeting decided that the subject of the Cotton Transport Act in Indore should be referred to a Sub-Committee consisting of representatives of the mill industry in Indore, the Gwalior representative on the Committee and the Local Sub-Committee. The Joint Sub-Committee met on the 19th January 1934 when the representatives of the Indore mills explained their position that so long *Desi-Mewadi* cotton was prevented from entering the State except under license their object was served and that no alteration in the present Act was necessary. They anticipated no difficulty in the railway companies refusing to book *Desi-Mewadi* cotton to any station in Indore State. In view, however, of the absence of the representatives of Gwalior and Indore States it was decided that further consideration of the subject should be postponed to some convenient date and that in the meanwhile the representatives of the Indore mills should supply figures for 1932-33 of imports of *kapas* and ginned cotton into the State.

Three other subjects which engaged the attention of the Sub-Committee were (1) Cotton Policy in Surat, (2) Goghari cotton sowings in Navsari Tract and (3) Adoption of Universal Standards for Indian cottons. These subjects are separately dealt with under items Nos. 6, 7 and 8 on the agenda of the full Committee and have not been detailed here.

APPENDIX VII.

SUBJECT 33.—*Cotton development in the Barrage areas of Sind—Note by the Chief Agricultural Officer in Sind.*

Secretary's Note.

The attached note on cotton development in the Barrage areas of Sind, received from the Chief Agricultural Officer in Sind, is for consideration.

Note on certain important aspects of the development of cotton cultivation in the Barrage areas of Sind

by

W. J. Jenkins, Esq., M.A., B.Sc., I.A.S., Chi gricultural Officer in Sind.

1. The Indian Central Cotton Committee has always shown considerable interest in the development of cotton cultivation in the Lloyd Barrage areas of Sind. At the 20th meeting of the Committee, held on the 11th November 1929, it was agreed that the Government of Bombay should be requested to give the Committee an opportunity of expressing its views from time to time on the various problems which would arise consequent upon the extension of cotton cultivation in the new irrigated areas of Sind. Accordingly, at the 22nd Meeting of the Committee, held on the 15th-16th December 1930, the Chief Agricultural Officer in Sind submitted a "Note on some of the most important and imminent problems connected with the future development of cotton cultivation in Sind under the Lloyd Barrage" which formed a basis for valuable discussions in both the Agricultural Research Sub-Committee and in the full Committee meetings. This note dealt with (*a*) the problem of the variety, (*b*) the problem of the ginning and pressing factories and (*c*) the problem of seed production, extension and distribution, and much useful and practical advice was given by the members of the Committee on the

selected areas of the Barrage zone. The Acala 27 and Hartsville III strains do not show a sufficiently superior spinning value over the improved Punjab-American 285-F and 289-F varieties to compensate for the lesser yield given by these imported American types and work on them is being largely discontinued. The last spinning test report received from the Technological Laboratory, Matunga, i.e., for 1932-33, states "Although the mean fibre length and fibre weight per inch of Boss III-16 and Sea Island 2-4 are practically the same, the former cotton has given yarns which are much stronger and more even. Ashmouni 37 is considerably shorter and coarser than Sea Island 2-4 but its yarns are only very slightly weaker. Similarly Acala 27 is considerably shorter than Hartsville III, but there is not much difference in the spinning performance of these cottons."

On account of the restricted area available for cotton cultivation on Government Farms in Sind, it has not been found possible to grow larger areas under Sea Island, Boss III and Ashmouni improved strains than will yield, at the most, two to three bales of these varieties. The Chief Agricultural Officer considers that, as a preliminary step towards their extension in the districts, the cultivation of these improved varieties by the Agricultural Department should be undertaken on larger areas in order to provide sufficient material for complete mill tests on an adequate scale both in Indian mills and abroad in order to obtain full data regarding the returns which might be obtained from these high-quality varieties to the grower in comparison with Punjab-American and *deshi* cottons. This work could be done on leased areas in the vicinity of existing Government Farms and it is suggested that the Central Cotton Committee, if it approves of such a development, might undertake the financing of this stage of extension of superior quality cottons in Sind.

The Central Cotton Committee may be interested to know that the work of introducing cotton cultivation on the Right Bank of the river Indus, carried on under the "Sind Cotton Extension Scheme" is making rapid progress and that a total area of, at least, 5,000 acres under cotton is anticipated next season. The difficulties encountered have been (*a*) difficulty in obtaining irrigation water for early (April) sowings as the demand is at present limited to small scattered cotton fields at this period and is not general over the whole tract, (*b*) the existing rule whereby land assessment is levied on a revenue unit containing different crops according to the crop bearing the highest rate of assessment cultivated in the survey number and (*c*) the total absence of ginning facilities in the tract. Representations regarding (*a*) and (*b*) have been made to the Irrigation and Revenue Departments respectively. With regard to (*c*), it is probable that a small ginnery will shortly be established by private agency. The improved Punjab-American variety, 4-F-98, is well suited to cultivation in this tract and, in general, has given better outturns in the demonstration plots than the *deshi* cotton.

4. *Regulation of the construction of new ginning and pressing factories in the Barrage areas.*—This important subject has been considered in detail by the Sind Cotton Committee who appointed a small Sub-Committee consisting of:

W. J. Jenkins, Esq., Chief Agricultural Officer in Sind (Chairman),
A. P. Darlow, Esq.,
Seth Issardas Varindamal,
Rao Bahadur Tharumal Bilaram,
Khan Bahadur Azim Khan,
Captain L. Vanrenen,

to consider the present position and future requirements of ginning facilities in the Barrage areas and the necessity for some control being exercised over the construction of new factories both with regard to number and situation.

The report of the Sub-Committee is given hereunder:—

"The Sub-Committee considered the Note on the regulation of the construction of ginning and pressing factories submitted by the Chief Agricultural Officer in Sind."

"The Sub-Committee was of the opinion that no immediate action towards the regulation of the construction of new ginning and pressing factories in the Barrage areas was advisable as the majority of the members considered that such regulation, at the present time (i.e. 1933), would tend to discourage the erection of new factories. In view of the definite scarcity of ginning factories in the new cotton-growing tracts, it was felt that nothing should be done which might result in checking or delaying private enterprise in providing increased ginning facilities for the cotton-growers. The possibility of the formation of 'pools' in ginning and pressing factories in Sind was considered to be remote and, in view of the compactness of the cotton-growing areas, such 'pools' were unlikely [illegible] in the future to the detriment of the interests of the Sind cotton-growers."

Sind cotton in Karachi and it has been represented strongly that experimental work on the saw-ginning of the improved Punjab-American varieties of cotton, which will be largely cultivated in Sind under Barrage irrigation, should be commenced as soon as possible. At present, there are no saw-gins working in Sind although, in the past, attempts have been made to utilise saw-gins in ginning factories at Mirpurkhas but these attempts have been abandoned after trial. The cause of the failure of saw-gins in Sind, has, so far as can be ascertained, never been thoroughly investigated but the opinion is advanced that this was due to (a) the disinclination of Indian spinners to utilise saw-ginned Indian cottons in their mills, possibly on account of damage to the lint by unsatisfactory settling and inexpert handling and (b) the insufficient supply of a type of cotton in Sind suitable for saw ginning. With regard to (a) there does not appear to be any reason to believe that properly saw-ginned cotton will not be acceptable to Indian spinners especially as large quantities of saw-ginned American cotton has been imported into India for use in Indian mills in recent years and there is considerable evidence that a premium will be forthcoming for properly saw-ginned cotton over roller-ginned of the same type which would more than compensate for any additional cost in saw-ginning. With regard to (b), the area under improved varieties of 285F and 289F Punjab-American cotton is increasing very considerably and large quantities of *kapas* of these varieties, suitable for saw-ginning, will shortly be produced in the Barrage areas. In addition the introduction of saw-ginning in Sind would contribute considerably towards a solution of the labour problem in the cotton tracts by reducing the number of manual workers required in the ginning factories. The Chief Agricultural Officer in Sind would welcome opinions from the members of the Central Cotton Committee on this subject with the object of preparing a scheme for the investigation of the possibilities of saw-ginning of Sind American cotton in co-operation with suitable ginning factory owners in the Barrage areas.

6. *Mycological and entomological problems connected with cotton cultivation in the Barrage areas.*—The Chief Agricultural Officer in Sind desires to bring to the notice of the Indian Central Cotton Committee the necessity for an early and detailed scientific investigation of the major insect pests and fungus and virus diseases which are commonly found to attack and damage the cotton crop in Sind. Such investigation will require the services of a qualified mycologist and entomologist and must be directed towards working out practical and economic control measures. In the first place, special attention is necessary to investigation of the pathological condition known as "leaf curl" which must definitely be considered to be a limiting factor to the extension of Punjab-American, American and Egyptian cottons in the Barrage areas. This disease is being studied from the physiological stand-point at the Physiological Section, Agricultural Research Station, Sakrand, but there is considerable reason to believe that the "leaf curl" damage is the result of previous severe jassid oraphis infestation of the crop and that adequate control measures adopted at critical periods of growth against these insect pests would give practical results of great importance. In the absence of a qualified entomologist on the staff of the Agricultural Department in Sind, it has not been possible to undertake intensive work on this problem, the importance of which may be judged by the estimate that "leaf curl" was responsible in the current season for a reduction in yield of three to four maunds of *kapas* per acre in the Southern Jamrao tract alone. A major pest on cotton in Sind, especially on the high quality imported American and Egyptian varieties, is the white ant, damage from which is especially severe in the new areas now coming under perennial irrigation from the Lloyd Barrage. Various inorganic and organic substances have been tested with the object of controlling white-ant attack but no fundamental work on the life history etc. of the pest under Sind conditions has yet been attempted. In the absence of the information which such research work would provide all attempts at devising suitable control measures must be entirely empirical. The Chief Agricultural Officer in Sind contemplates the submission of proposals for a research scheme on "leaf curl" and white-ant damage to the cotton crop in Sind from the mycological, entomological and agricultural stand-points and submits this brief preliminary note with the object of obtaining expert opinions and advice from scientific workers in other cotton-growing provinces.

7. *The multiplication and distribution of seed of improved varieties of cotton in Sind.*—A seed multiplication scheme for improved varieties of cotton based on "units"—each "unit" representing an area of 25,000 acres finally developed under one variety of improved cotton—has been organised and is now entering upon its third stage. The programme of pure seed multiplication under this scheme consists of five stages for each "unit" viz. (1) seed patch—2½ acres, (2) increase block—25 acres, (3) field-scale plantings—250 acres, (4) village groups—2,500 acres and (5) district groups—25,000 acres. The first three stages are under careful departmental supervision: the fourth and fifth stages will be arranged through selected seed-growers and co-operative organisations.

Nine "units" of multiplication—five for improved *desi* cotton and four for improved varieties—are commenced annually and in *Kharif*, 1934, the "seed patch" stage (1934 Punjab-American series) of 22½ acres, the "increase block" stage (1933 series) of 225 acres and the "field-scale planting" stage (1932 series) of 2,250 acres will be undertaken by the Agricultural Department in Sind.

The first two stages of the cotton seed multiplication scheme are carried through entirely on Government Farms and hence, control and management present no problems. For the third stage, i.e., field scale plantings, amounting each year to approximately 2,500 acres, arrangements are being made to multiply the seed on the lands of "A" class

the mills, and, based upon the results of such tests, to establish by official or non-official agency, marketing organisations for the regular supply of standardised and unmixed varieties of cotton sold under recognised trade descriptions and marks. The Indian Cotton Committee of 1919, in the portion of its Report dealing with Sind, stated, "The fact that the full premium was not obtained for the American cotton was due to lack of organisation and had no real relation to the intrinsic merits of the cotton." No change has taken place since this statement was made and the improved varieties of American cotton now being produced in Sind are as far off obtaining an adequate premium over *deshi* or other inferior Punjab American types as in the period referred to in the report of the Indian Cotton Committee, i.e., 1914–1919. The Indian Cotton Committee did not suggest in any great detail the organisation which they had in view to ensure that the price obtained for improved American cottons grown in India should approximate more closely to that warranted by its intrinsic quality and their recommendations in this connection can be summarised as (*a*) the establishment of regular cotton markets on the Berar system, (*b*) an expansion of the co-operative sale movement, (*c*) the conduct of auction sales, under Government agency up to a certain stage after which this work should be handed over to other agencies, e.g., co-operative or private and (*d*) the licensing of gins and presses. The Chief Agricultural Officer in Sind is of the opinion that the time has now arrived when the recommendations of the Indian Cotton Committee of 1919 should be reviewed by a strong and representative Sub-Committee of the Indian Central Cotton Committee to whom should be entrusted the task of examining in detail the existing and possible demands for the various types of cotton produced—or likely to be reproduced—in India and of framing proposals for propaganda and marketing organisations designed to encourage, stimulate and facilitate the use of Indian cottons in India and abroad. Such an overhaul of the marketing system of the various main types of agricultural produce has already taken place in many western countries and "Marketing Boards" have been established to correlate more closely the interests of both producers and consumers. It is submitted that the time is now ripe for similar action with regard to the cotton crop of India.

The Royal Commission on Agriculture in India expressed the opinion that co-operative sale societies might, through time, play an important part in the grading and marketing of agricultural produce and that the Agricultural Departments can assist most effectively in such a development by giving such societies expert aid in the grading of their members' produce. In Sind where no regulated cotton markets exist and where, until very considerable improvement in internal communications takes place, the establishment of such markets is unlikely to occur to any real extent, propaganda work in the direction of improved and organised marketing directed towards the primary producers is unlikely to have any practical results and the establishment of organisations for the co-operative sale of improved cottons presents almost insuperable difficulties. It is suggested that the most hopeful method of advance in this direction in Sind is through the ginning factories—who are largely the buyers of the Sind cotton crop and upon whose methods of dealing with and marketing the crop, the reputation of Sind cottons must mainly depend in the future.